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## ABSTRACT

This comic-style booklet is one of a series of educational booklets published by the Federal Reserve Bank of New York. The booklet uses everyday language and lively illustrations to explain the benefits of international trade; the effects of tariffs and quotas; the significance of foreign exchange rates; how the foreign exchange market facilitates trade; and why central banks sometimes intervene in the foreign exchange market. It provides, in narrative format, a historical context for the beginnings of world trade and defines or explains relevant terms used in international trade. (BT)

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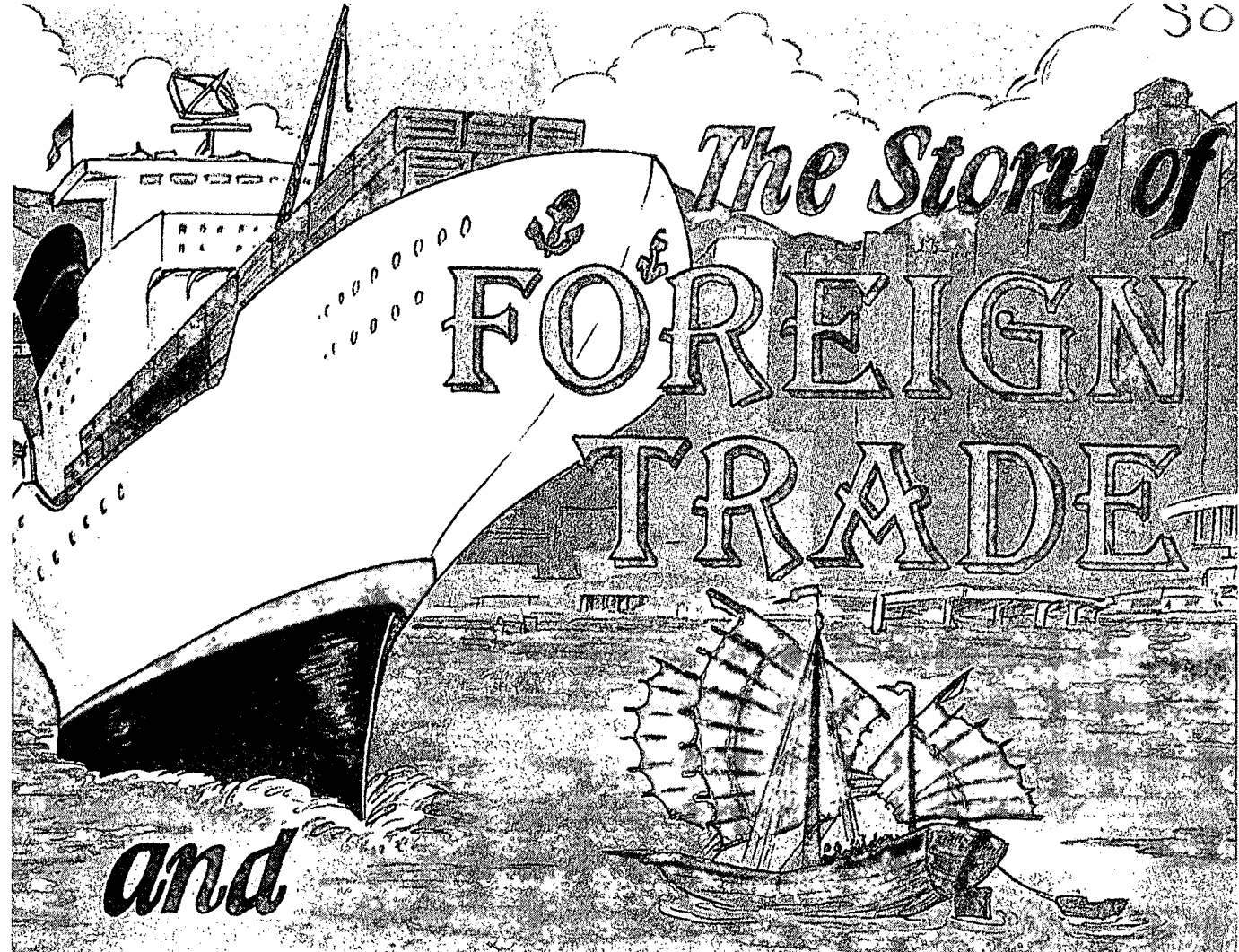
## The Story of Foreign Trade and Exchange.

by Cedric Fan

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# The Story of FOREIGN TRADE

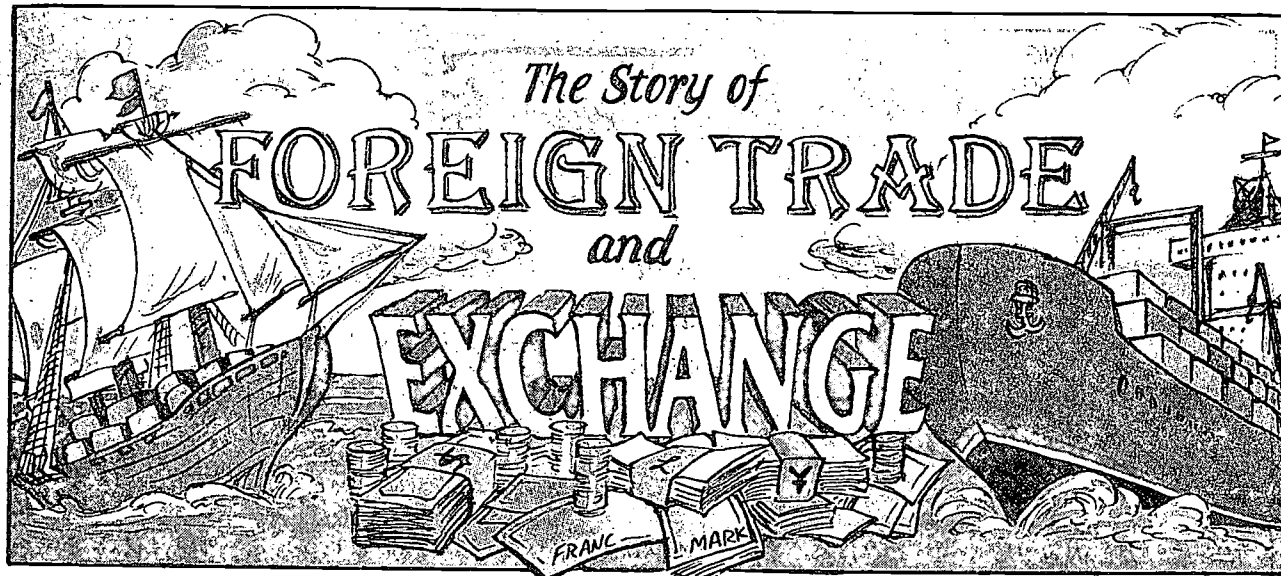
and

# EXCHANGE MONEY

FEDERAL RESERVE BANK OF NEW YORK





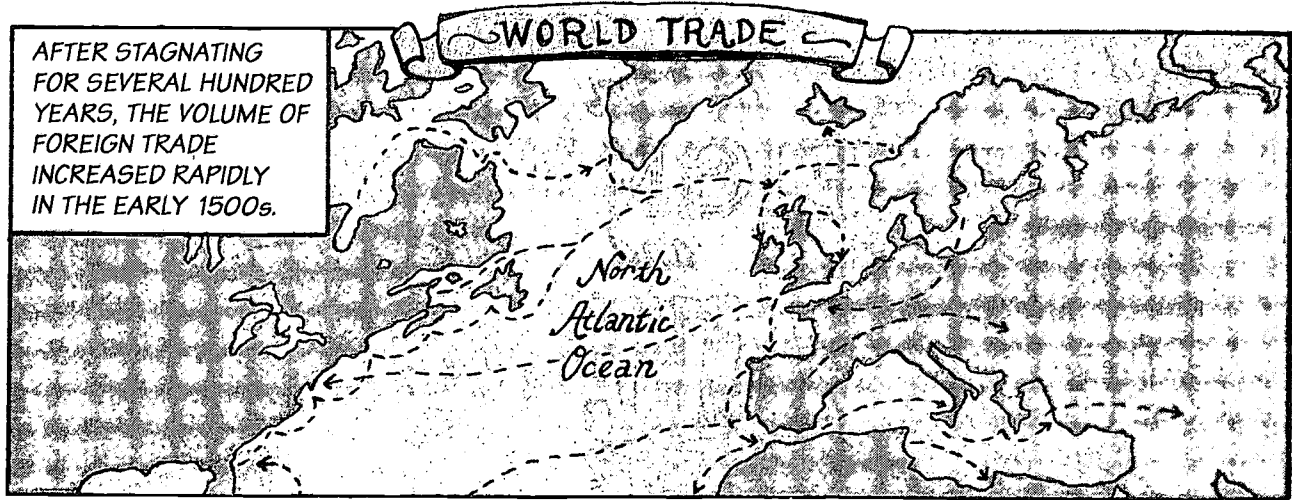


**M**ANY OF THE PRODUCTS YOU USE EVERY DAY, LIKE YOUR CD PLAYER AND TV SET, WERE NOT DESIGNED OR MANUFACTURED IN THE UNITED STATES. WHY DO YOU HAVE THE OPPORTUNITY TO BUY AND USE SO MANY FOREIGN PRODUCTS?

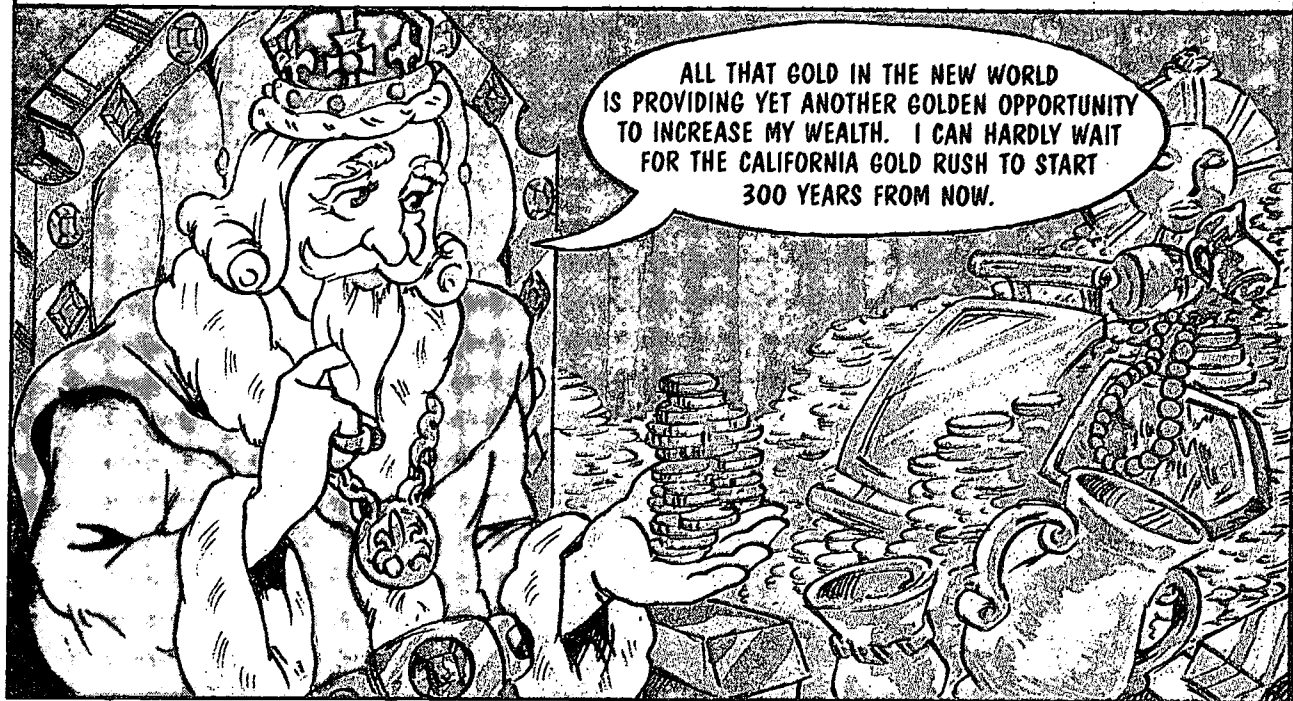




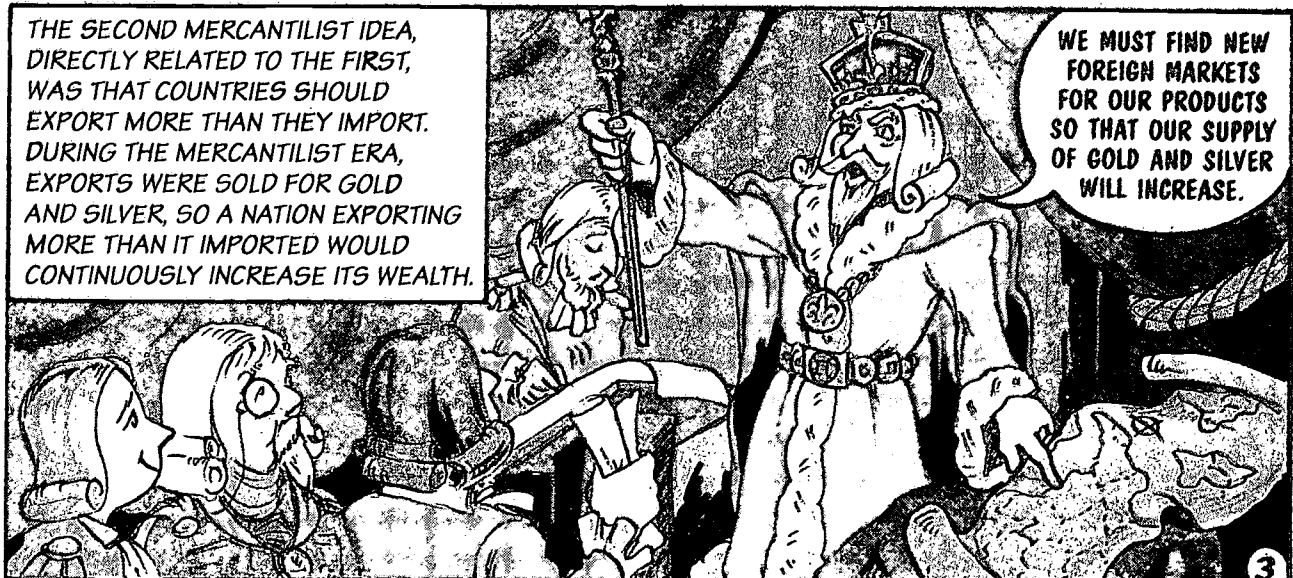
AFTER STAGNATING FOR SEVERAL HUNDRED YEARS, THE VOLUME OF FOREIGN TRADE INCREASED RAPIDLY IN THE EARLY 1500s.



THE EUROPEAN NATIONS DOMINANT AT THAT TIME PURSUED AN ECONOMIC PHILOSOPHY CALLED MERCANTILISM. MERCANTILISM CONSISTED OF TWO MAIN IDEAS. THE FIRST WAS THAT PRECIOUS METALS DETERMINED A NATION'S WEALTH.

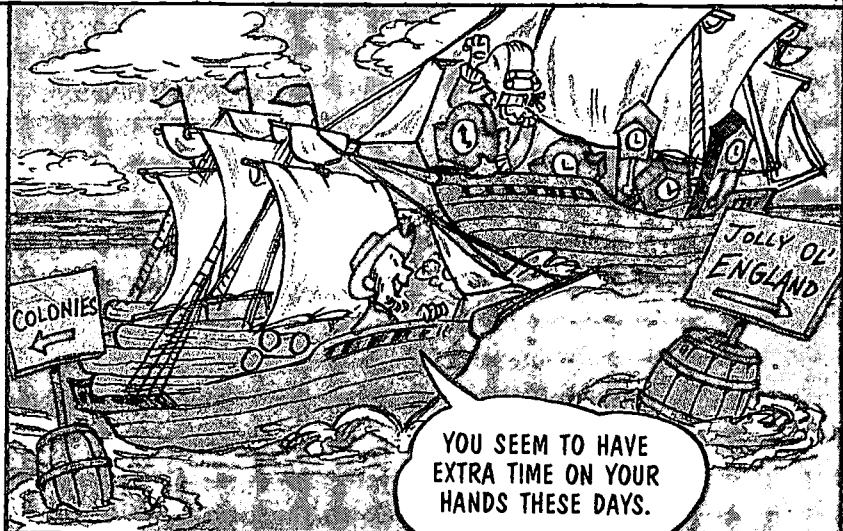


THE SECOND MERCANTILIST IDEA, DIRECTLY RELATED TO THE FIRST, WAS THAT COUNTRIES SHOULD EXPORT MORE THAN THEY IMPORT. DURING THE MERCANTILIST ERA, EXPORTS WERE SOLD FOR GOLD AND SILVER, SO A NATION EXPORTING MORE THAN IT IMPORTED WOULD CONTINUOUSLY INCREASE ITS WEALTH.





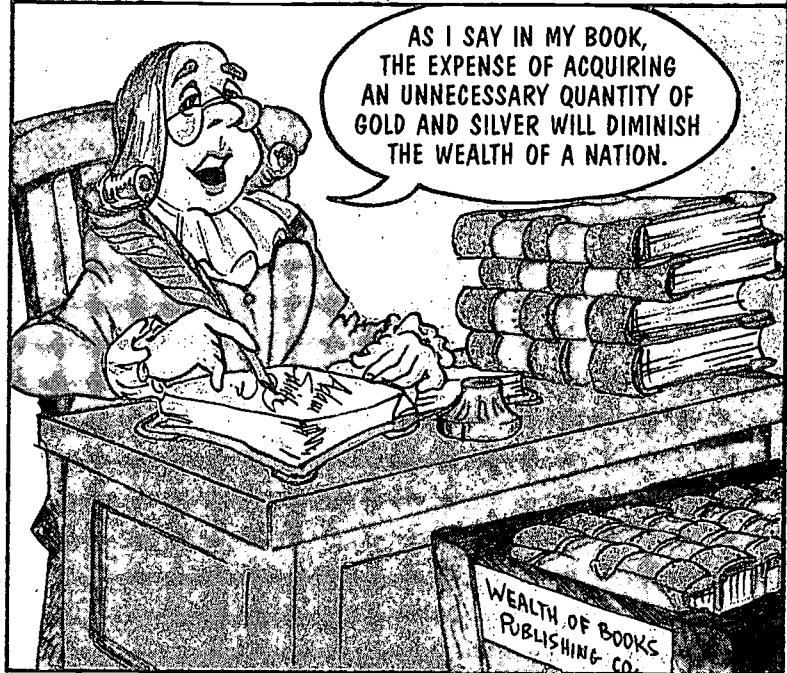
TO EXPORT MORE THAN THEY IMPORTED, MERCANTILIST NATIONS FOCUSED ON FINDING NEW NATURAL RESOURCES THAT COULD BE PROCESSED AND MANUFACTURED INTO GOODS FIT FOR SALE ABROAD.



THE MERCANTILIST PHILOSOPHY WAS CHALLENGED BY THE PUBLICATION OF ADAM SMITH'S *THE WEALTH OF NATIONS* IN 1776.



SMITH DID NOT SHARE THE MERCANTILISTS' BELIEF THAT A COUNTRY'S WEALTH WAS DETERMINED BY PRECIOUS METALS. HE BELIEVED A NATION'S WEALTH ULTIMATELY WAS DETERMINED BY ITS HOLDINGS OF ASSETS SUCH AS HOUSEHOLD ITEMS THAT CONSUMERS DESIRED.



SMITH ARGUED THAT NATIONS SHOULD EXPORT THE SURPLUS OF WHAT THEY WERE GOOD AT PRODUCING, AND USE THE PROCEEDS OF THE EXPORT SALES TO IMPORT WHAT THEY WEREN'T GOOD AT PRODUCING. ONLY THEN WOULD THE TRUE WEALTH OF NATIONS INCREASE.

Ye Olde  
MERCANTILIST  
MARKET

WE BUY  
COLONIAL  
WOOD  
AND SELL  
BRITISH  
CLOCKS

Adam Smith  
MARKET

WE SELL  
COLONIAL  
CLOCKS



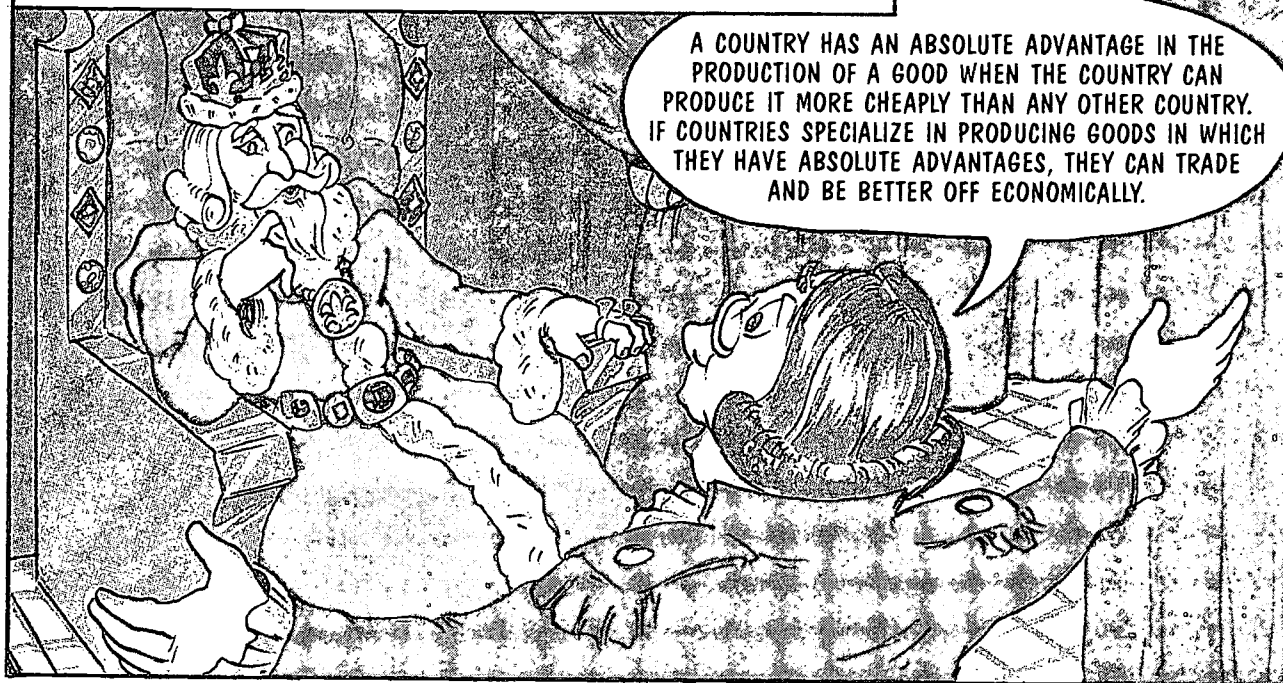
SMITH POINTED OUT THAT MANY NATIONS HAVE NATURAL AND ACQUIRED ADVANTAGES IN PRODUCING CERTAIN GOODS. SOME COUNTRIES ARE RICH IN NATURAL RESOURCES, SUCH AS LUMBER AND FARMLAND...



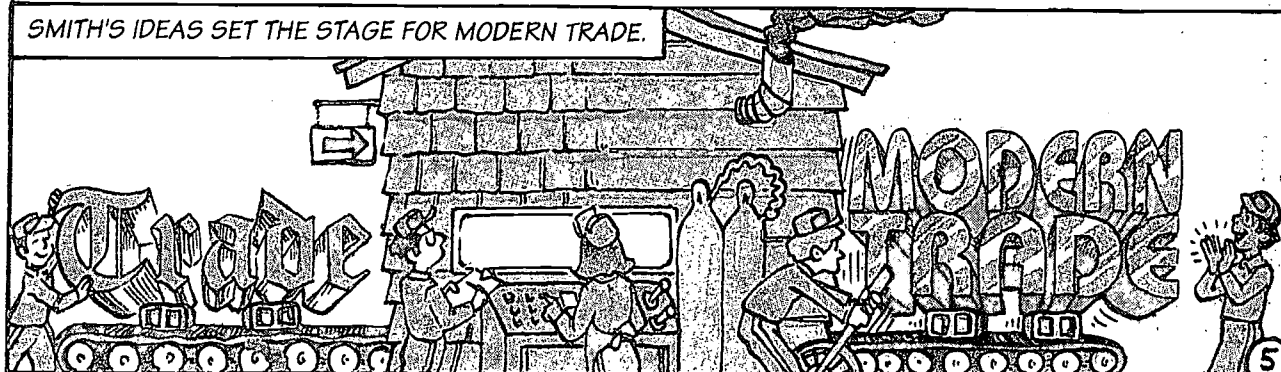
... AND OTHERS IN ACQUIRED RESOURCES, SUCH AS A HIGHLY TRAINED WORKFORCE AND A LARGE TECHNOLOGICAL BASE. THESE COUNTRIES HAVE AN ADVANTAGE IN PRODUCING GOODS SUCH AS COTTON, BECAUSE COTTON MANUFACTURING REQUIRES SKILLED WORKERS AND TECHNOLOGICALLY ADVANCED MACHINES.



THESE NATURAL AND ACQUIRED ADVANTAGES LED SMITH TO INTRODUCE THE PRINCIPLE OF ABSOLUTE ADVANTAGE.



SMITH'S IDEAS SET THE STAGE FOR MODERN TRADE.

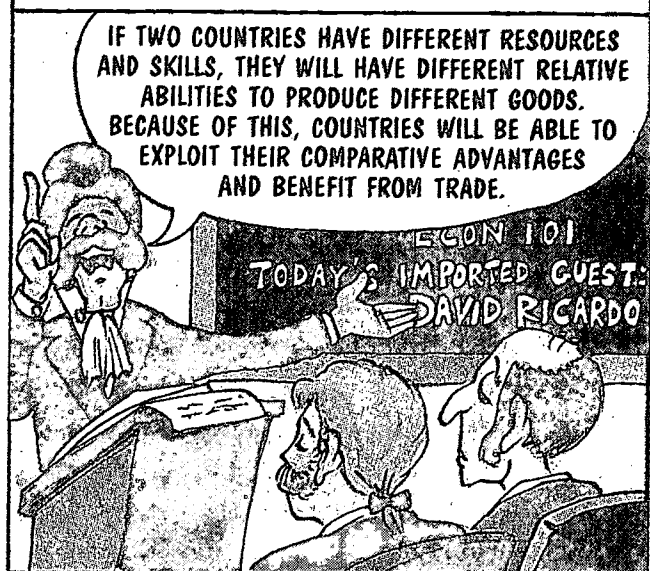




SMITH'S IDEAS ON TRADE WERE REFINED IN THE EARLY 19th CENTURY, WHEN THE WEALTHY BOND TRADER DAVID RICARDO EXPLAINED THE CONCEPT OF COMPARATIVE ADVANTAGE.



RICARDO SHOWED THAT WHEN TWO NATIONS HAVE DIFFERENT RELATIVE ABILITIES TO PRODUCE DIFFERENT GOODS, TRADE WILL BENEFIT BOTH NATIONS.



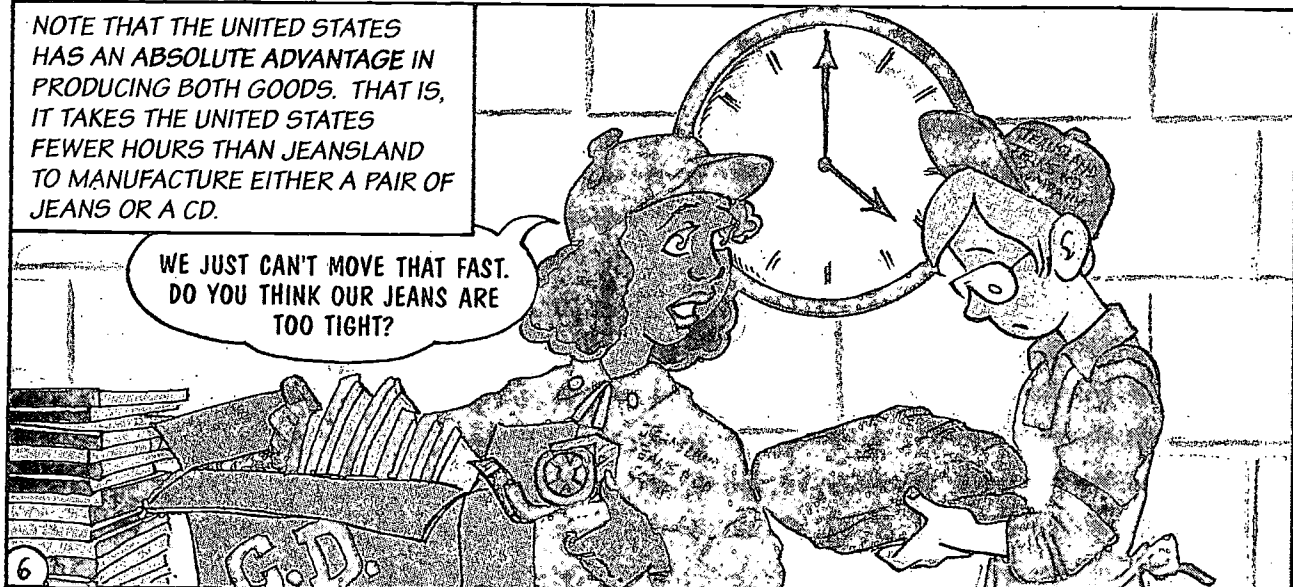
A SIMPLE EXAMPLE WILL ILLUSTRATE THE CONCEPT OF COMPARATIVE ADVANTAGE. LET'S ASSUME THAT THE UNITED STATES AND A MYTHICAL COUNTRY WE'LL CALL JEANSLAND BOTH PRODUCED BLUE JEANS AND COMPACT DISCS.



NOW, SUPPOSE IT TAKES 1 HOUR TO MAKE A CD AND 2 HOURS TO MAKE A PAIR OF BLUE JEANS IN THE UNITED STATES, WHEREAS IT TAKES 4 HOURS TO MAKE A CD AND 4 HOURS TO MAKE A PAIR OF JEANS IN JEANSLAND.

	HOURS PER GOOD	
	1 CD	1 PAIR JEANS
UNITED STATES	1	2
JEANSLAND	4	4

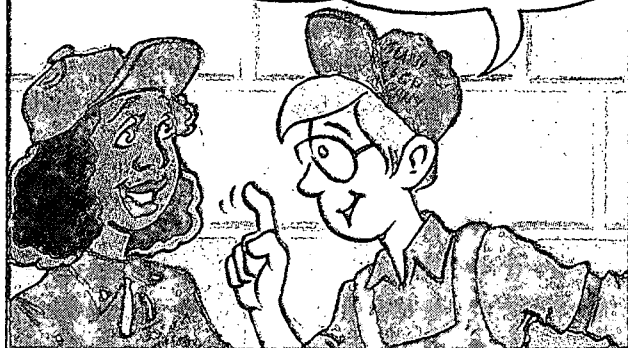
NOTE THAT THE UNITED STATES HAS AN ABSOLUTE ADVANTAGE IN PRODUCING BOTH GOODS. THAT IS, IT TAKES THE UNITED STATES FEWER HOURS THAN JEANSLAND TO MANUFACTURE EITHER A PAIR OF JEANS OR A CD.





BECAUSE AMERICA HAS AN ABSOLUTE ADVANTAGE IN PRODUCING BOTH GOODS, YOU MIGHT THINK THAT ONLY THE UNITED STATES WOULD BENEFIT FROM TRADE. IN FACT, THOUGH, BECAUSE JEANSLAND AND THE UNITED STATES HAVE DIFFERENT RELATIVE ABILITIES IN PRODUCING CDs AND JEANS, BOTH NATIONS WILL BENEFIT FROM TRADE.

OF COURSE, JEANSLAND AND THE UNITED STATES WILL BENEFIT ONLY IF WE PRODUCE DIFFERENT GOODS.



ALTERNATIVELY, BECAUSE IT TAKES 4 HOURS TO MAKE A PAIR OF JEANS IN JEANSLAND AND 2 HOURS IN THE UNITED STATES, JEANSLAND WORKERS ARE 1/2 AS EFFICIENT AS U.S. WORKERS IN MAKING JEANS, AND BECAUSE IT TAKES 4 HOURS TO MAKE A CD IN JEANSLAND AND 1 HOUR IN THE UNITED STATES, JEANSLAND WORKERS ARE ONLY 1/4 AS EFFICIENT AS U.S. WORKERS IN MAKING CDs. THEREFORE, JEANSLAND WORKERS ARE RELATIVELY MORE EFFICIENT IN THE PRODUCTION OF JEANS THAN IN THE PRODUCTION OF CDs.

IN THE TIME IT TAKES MY AMERICAN FRIEND TO MAKE 1 FULL PAIR OF JEANS, I CAN MAKE 1/2 A PAIR. IN THE TIME IT TAKES HIM TO MAKE 1 CD, I CAN MAKE ONLY 1/4 OF A CD.



SINCE IT TAKES 1 HOUR TO MAKE A CD IN THE UNITED STATES AND 4 HOURS IN JEANSLAND, U.S. WORKERS ARE FOUR TIMES AS EFFICIENT AS JEANSLAND WORKERS IN MAKING CDs. BECAUSE IT TAKES 2 HOURS TO MAKE A PAIR OF JEANS IN THE UNITED STATES AND 4 HOURS IN JEANSLAND, U.S. WORKERS ARE ONLY TWO TIMES AS EFFICIENT AS JEANSLAND WORKERS IN MAKING JEANS. THUS WE SAY THAT U.S. WORKERS ARE RELATIVELY MORE EFFICIENT IN THE PRODUCTION OF CDs THAN IN THE PRODUCTION OF JEANS.

UNITED  
CD & JEAN

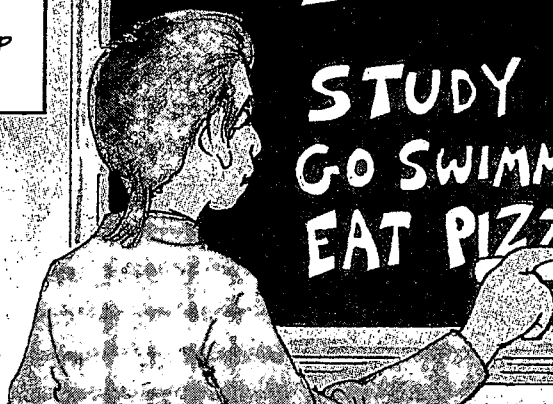
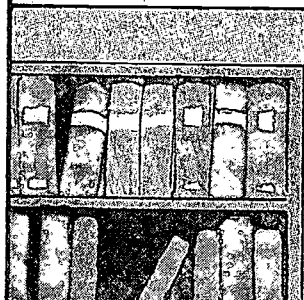
IN THE TIME IT TAKES MY FRIEND IN JEANSLAND TO MAKE 1 CD, I CAN MAKE 4. IN THE TIME IT TAKES HIM TO MAKE 1 PAIR OF JEANS, I CAN MAKE 2.



SINCE JEANSLAND IS RELATIVELY MORE EFFICIENT IN MAKING JEANS, JEANSLAND HAS A COMPARATIVE ADVANTAGE IN THE PRODUCTION OF JEANS. BECAUSE THE UNITED STATES IS RELATIVELY MORE EFFICIENT IN PRODUCING CDs, THE UNITED STATES HAS A COMPARATIVE ADVANTAGE IN THE PRODUCTION OF CDs.



COMPARATIVE ADVANTAGE CAN ALSO BE DESCRIBED IN TERMS OF OPPORTUNITY COSTS. AN OPPORTUNITY COST IS WHAT YOU GIVE UP TO DO SOMETHING ELSE.



WHAT I DID      WHAT I COULD HAVE DONE  
**STUDY**      **TAKE NAP**  
**GO SWIMMING**      **PLAY BASKET**  
**EAT PIZZA**      **EAT HAMBUR**

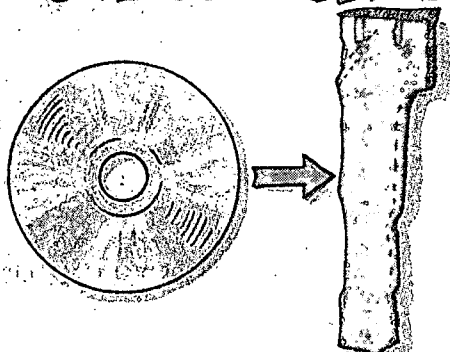
FOR EXAMPLE, IF YOU DECIDE TO STUDY ALL NIGHT FOR AN EXAM THE NEXT MORNING, YOU WOULD CERTAINLY MISS SOME SLEEP. THE LOST SLEEP IS THE OPPORTUNITY COST OF STUDYING. IF YOU FALL ASLEEP DURING THE EXAM, THE OPPORTUNITY COST OF THAT SLEEP IS THE GOOD GRADE YOU WOULD HAVE RECEIVED HAD YOU REMAINED AWAKE AND ANSWERED THE TEST QUESTIONS.



OPPORTUNITY COST IS THE BASIS OF COMPARATIVE ADVANTAGE. TO SEE HOW, SUPPOSE U.S. WORKERS AT FIRST PRODUCE ONLY CDs. PRODUCING 1 CD FEWER FREES 1 HOUR, WITH WHICH AN AMERICAN CAN MAKE 1/2 PAIR OF JEANS.

**GIVE UP**

**GET INSTEAD**

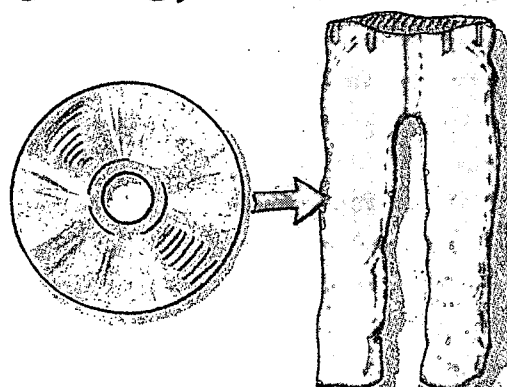


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IN JEANSLAND, PRODUCING 1 CD FEWER FREES 4 HOURS, WHICH CAN BE USED TO MAKE 1 PAIR OF JEANS.

**GIVE UP**

**GET INSTEAD**





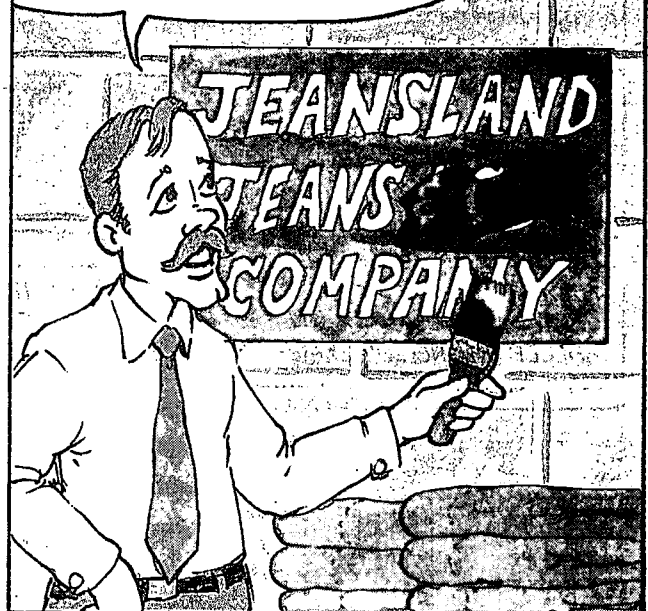
BECAUSE THE OPPORTUNITY COST OF MAKING A CD IS LOWER IN THE UNITED STATES (1/2 PAIR OF JEANS) THAN IN JEANSLAND (A FULL PAIR OF JEANS), AMERICANS HAVE A COMPARATIVE ADVANTAGE IN MAKING CDs. SIMILARLY, JEANSLAND HAS A COMPARATIVE ADVANTAGE IN MAKING JEANS. CAN YOU FIGURE OUT WHY?

IF I MAKE CDs INSTEAD OF JEANS, I CAN SAVE SOME OF MY INCOME AND BUY JEANS IMPORTED FROM JEANSLAND. HOWEVER, MY PLAN WON'T WORK UNLESS WORKERS IN JEANSLAND CHOOSE TO MAKE JEANS.

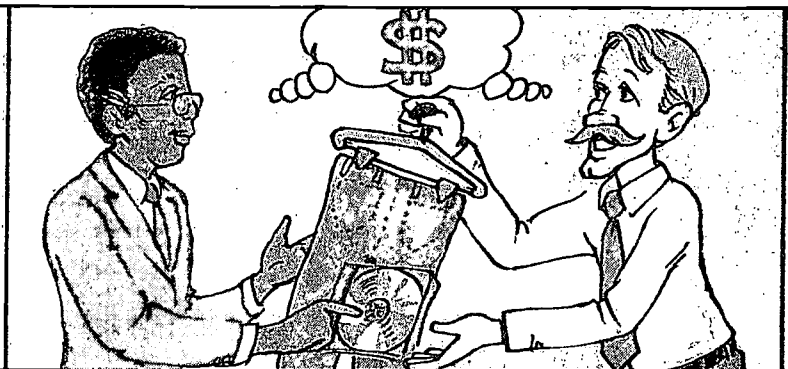


THAT'S RIGHT. JEANSLAND HAS A COMPARATIVE ADVANTAGE IN MAKING JEANS BECAUSE THE OPPORTUNITY COST OF MAKING A PAIR OF JEANS IS LOWER IN JEANSLAND (1 CD) THAN IN THE UNITED STATES (2 CDs).

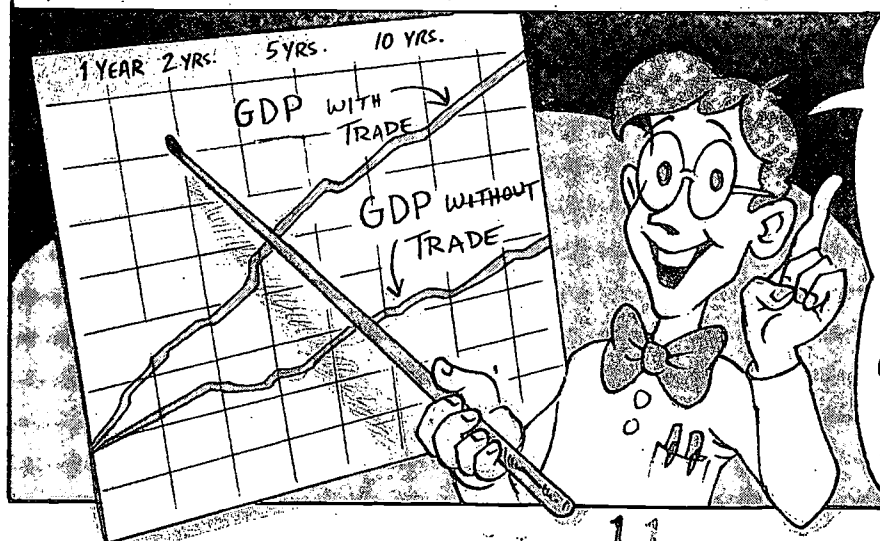
IF I MAKE JEANS INSTEAD OF CDs, I CAN SAVE SOME OF MY INCOME AND BUY CDs IMPORTED FROM AMERICA.



IF JEANSLAND CITIZENS TRADE JEANS FOR CDs, THEY'RE TRADING THE GOOD THEY CAN PRODUCE RELATIVELY MORE EFFICIENTLY FOR THE GOOD THEY PRODUCE RELATIVELY LESS EFFICIENTLY. THIS MUST BE BETTER THAN THE INITIAL SITUATION, IN WHICH JEANSLAND PRODUCED BOTH GOODS. LIKEWISE, THE UNITED STATES MUST ALSO BE BETTER OFF UNDER TRADE BASED ON COMPARATIVE ADVANTAGE.

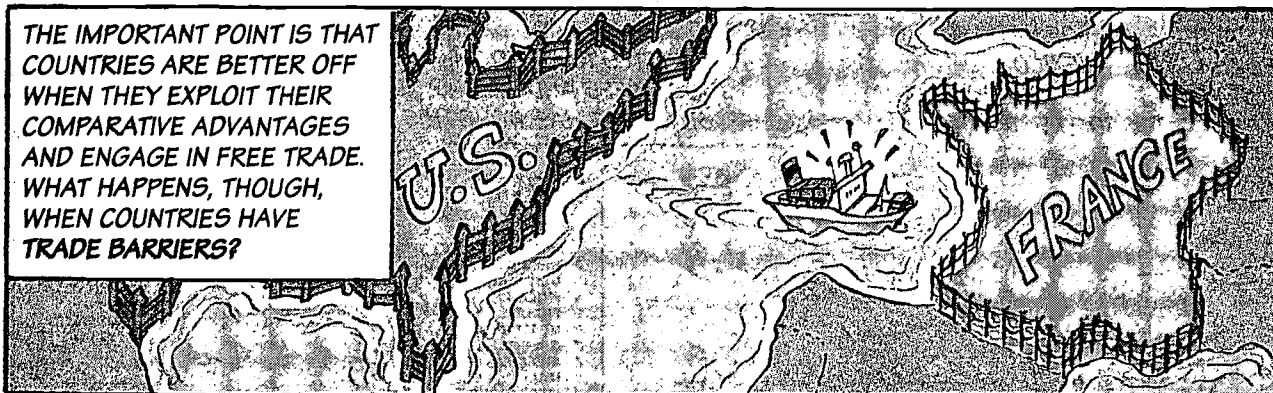


IF ALL NATIONS EXPLOIT THEIR COMPARATIVE ADVANTAGES, ALL WILL BE BETTER OFF, AND THE STANDARD OF LIVING OF EACH NATION WILL RISE. GROSS DOMESTIC PRODUCT (GDP), THE VALUE OF GOODS AND SERVICES PRODUCED IN A COUNTRY, WILL INCREASE AND NEW JOBS WILL BE CREATED.

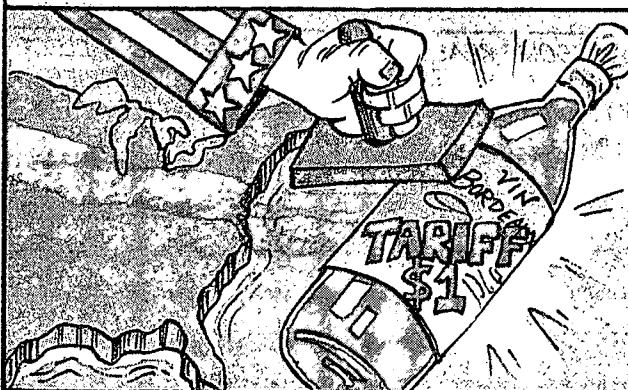


IT SHOULD BE NOTED THAT THE JEANSLAND/UNITED STATES EXAMPLE IS A GREAT SIMPLIFICATION OF WHAT HAPPENS IN THE REAL WORLD. IN THE REAL WORLD, COUNTRIES NEVER COMPLETELY SPECIALIZE IN THE PRODUCTION OF ONE OR A FEW GOODS, BUT UNDERLYING ECONOMIC FACTORS RELATED TO COMPARATIVE ADVANTAGE DO LEAD TO CONCENTRATION IN THE PRODUCTION OF CERTAIN GOODS. THUS, OUR EXAMPLE YIELDS VALUABLE INSIGHT INTO THE REASONS NATIONS TRADE.

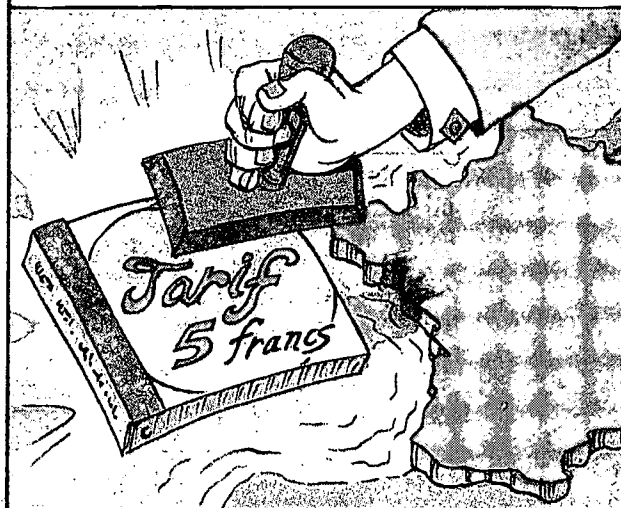
THE IMPORTANT POINT IS THAT COUNTRIES ARE BETTER OFF WHEN THEY EXPLOIT THEIR COMPARATIVE ADVANTAGES AND ENGAGE IN FREE TRADE. WHAT HAPPENS, THOUGH, WHEN COUNTRIES HAVE TRADE BARRIERS?



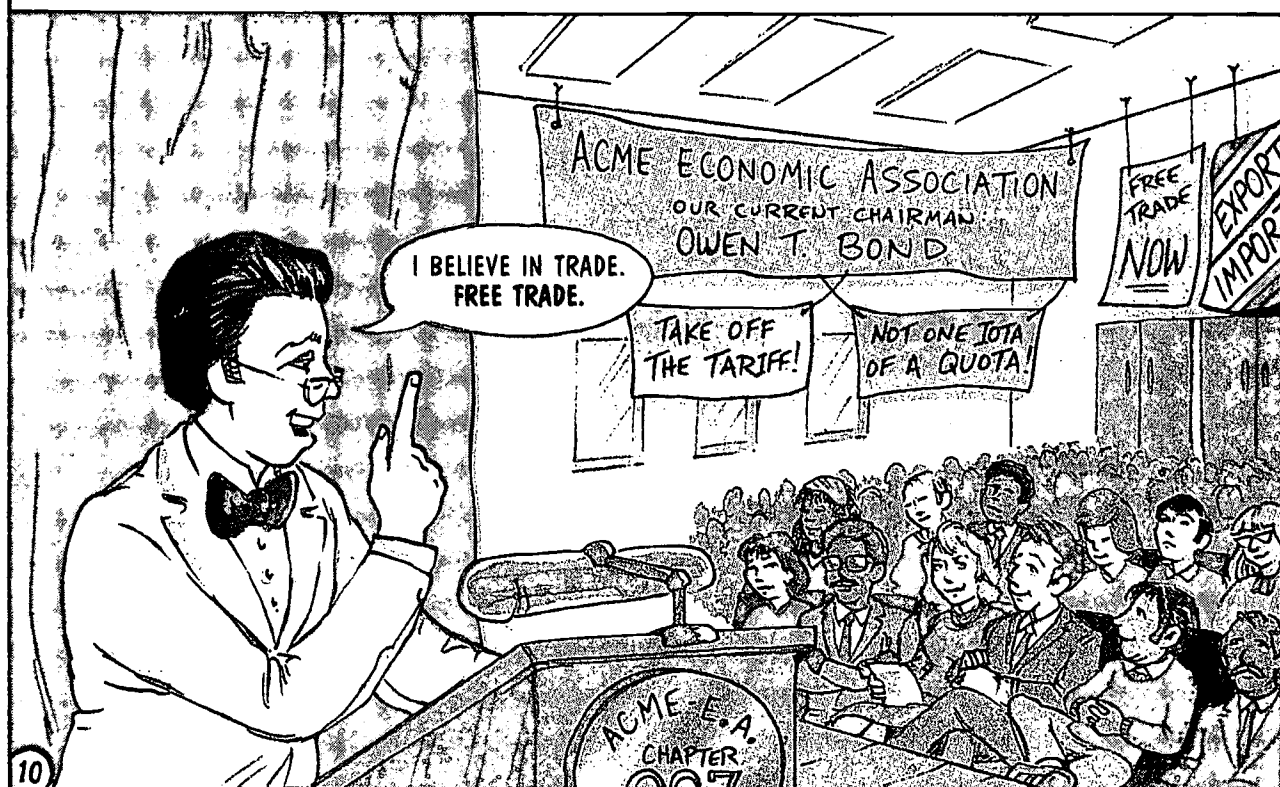
TRADE BARRIERS HAVE TWO BASIC FORMS, **TARIFFS** AND **QUOTAS**. A **TARIFF** IS A TAX IMPOSED ON GOODS IMPORTED INTO A COUNTRY. FOR EXAMPLE, THE UNITED STATES MIGHT IMPOSE A \$1 TARIFF ON ALL BOTTLES OF FRENCH WINE ENTERING THE UNITED STATES...



...AND FRANCE MIGHT IMPOSE A 5-FRANC TARIFF ON ALL U.S. COMPACT DISCS ENTERING FRANCE.

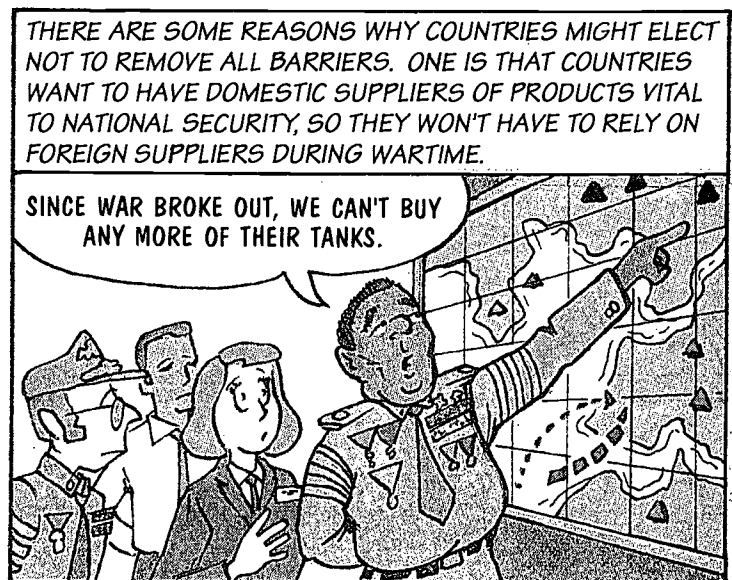
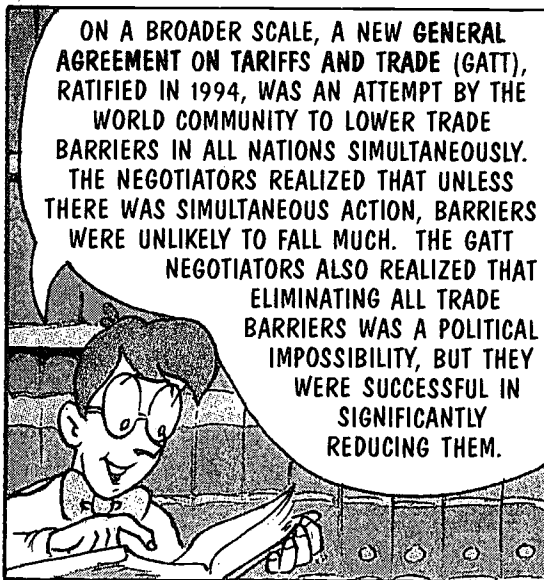
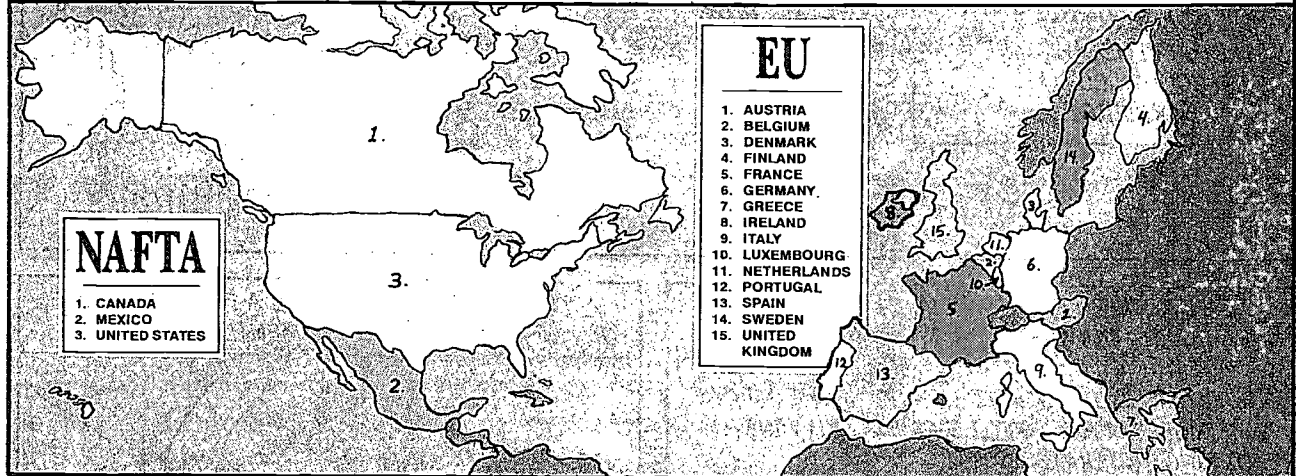


A **QUOTA** IS A RESTRICTION ON THE QUANTITY OF A PARTICULAR GOOD ENTERING A NATION. MOST ECONOMISTS OPPOSE TARIFFS AND QUOTAS BECAUSE THEY LIMIT FREE TRADE, AND FREE TRADE RAISES STANDARDS OF LIVING.

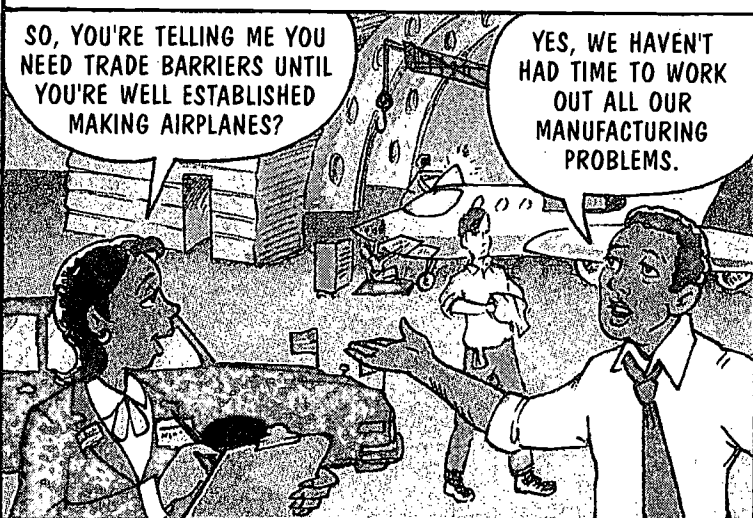




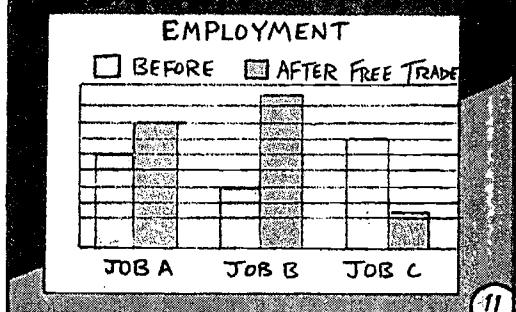
SEVERAL BLOCS OF NATIONS HAVE ATTEMPTED TO LOWER TRADE BARRIERS BETWEEN THEIR MEMBERS. FOR EXAMPLE, MEXICO, CANADA, AND THE UNITED STATES RATIFIED THE NORTH AMERICAN FREE TRADE AGREEMENT (NAFTA) IN 1993, SHARPLY REDUCING TARIFFS AND EASING QUOTAS ON GOODS AND SERVICES TRADED WITHIN THE BLOC. ANOTHER BLOC THAT HAS DONE THIS IS THE EUROPEAN UNION (EU).



ANOTHER IS THAT MANY COUNTRIES WANT TO DEVELOP THEIR NEW AND STRUGGLING INDUSTRIES. SOME PEOPLE SAY THAT THESE NEW INDUSTRIES NEED THE PROTECTION OF TRADE BARRIERS IN ORDER TO MATURE INTO INDUSTRIES ABLE TO COMPETE IN THE WORLD MARKET.

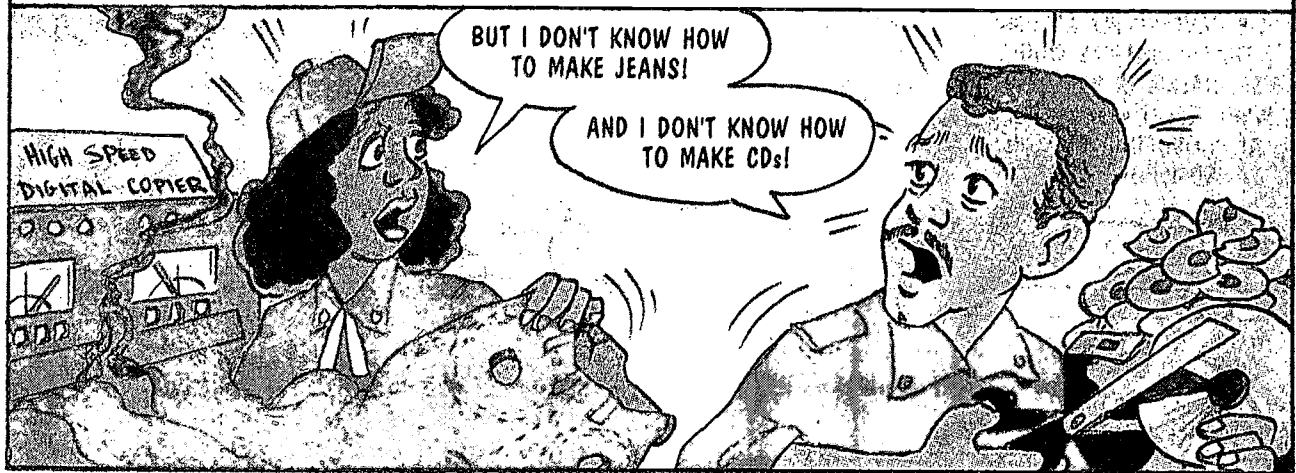


A THIRD REASON IS THAT WHILE FREE TRADE WILL ALWAYS MAKE A COUNTRY AS A WHOLE BETTER OFF, THIS DOESN'T MEAN THAT ALL ITS CITIZENS WILL BE MADE BETTER OFF. WHEN COUNTRIES SPECIALIZE IN PRODUCTION ACCORDING TO COMPARATIVE ADVANTAGE, SOME WORKERS WILL LOSE THEIR JOBS. THIS WILL LEAD TO TEMPORARY, OR POSSIBLY PERMANENT, UNEMPLOYMENT FOR SOME PEOPLE.

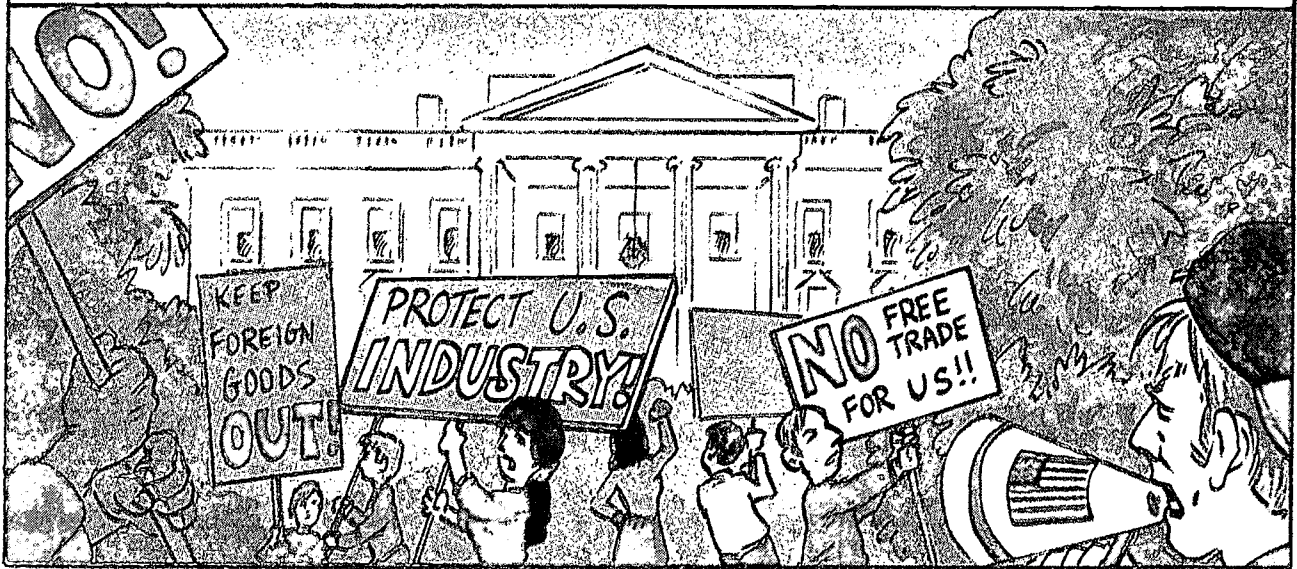




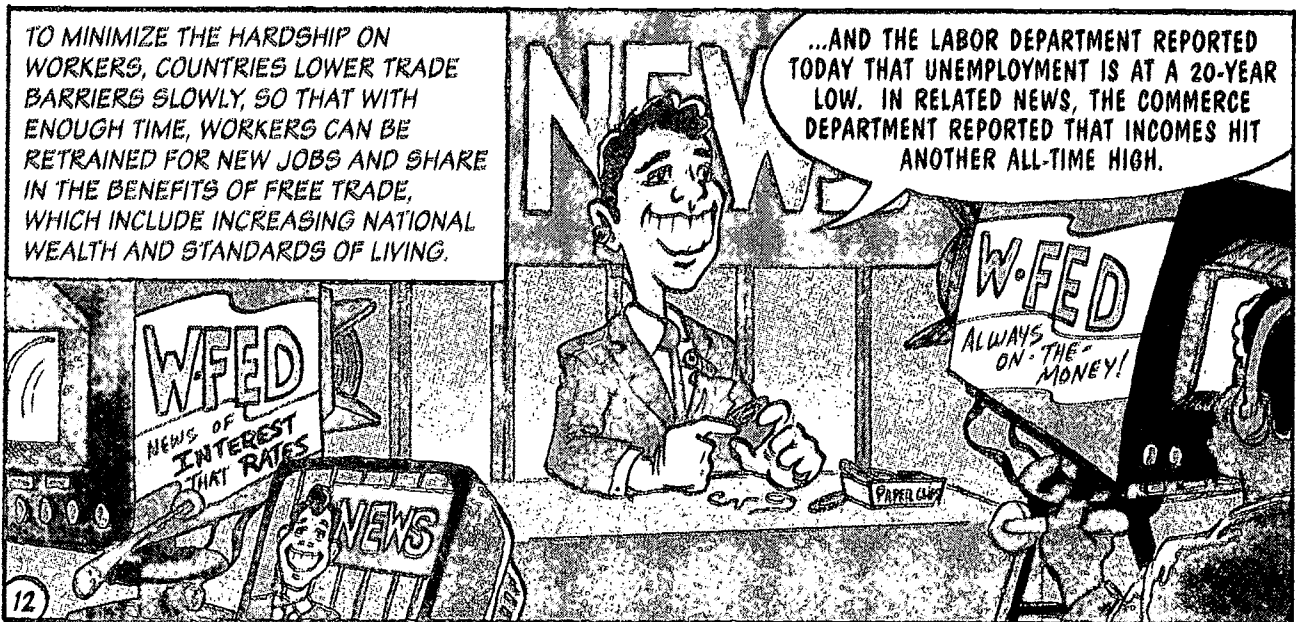
RETURNING TO OUR UNITED STATES/JEANSLAND EXAMPLE: IF SUDDENLY JEANSLAND CD MAKERS LOSE THEIR JOBS BECAUSE OF COMPETITION FROM THE UNITED STATES, AND U.S. JEANS MAKERS LOSE THEIR JOBS BECAUSE OF COMPETITION FROM JEANSLAND, THERE MIGHT BE SOME UNPLEASANT SHORT-TERM PROBLEMS IF THE WORKERS CAN'T BE RETRAINED QUICKLY FOR NEW JOBS IN A DIFFERENT INDUSTRY.



THE DISPLACEMENT OF WORKERS CAN CONSTITUTE A POLITICAL AND ECONOMIC PROBLEM. THIS IS A MAJOR REASON THAT NO NATION IS CALLING FOR AN IMMEDIATE LIFTING OF ALL TRADE BARRIERS.



TO MINIMIZE THE HARDSHIP ON WORKERS, COUNTRIES LOWER TRADE BARRIERS SLOWLY SO THAT WITH ENOUGH TIME, WORKERS CAN BE RETRAINED FOR NEW JOBS AND SHARE IN THE BENEFITS OF FREE TRADE, WHICH INCLUDE INCREASING NATIONAL WEALTH AND STANDARDS OF LIVING.



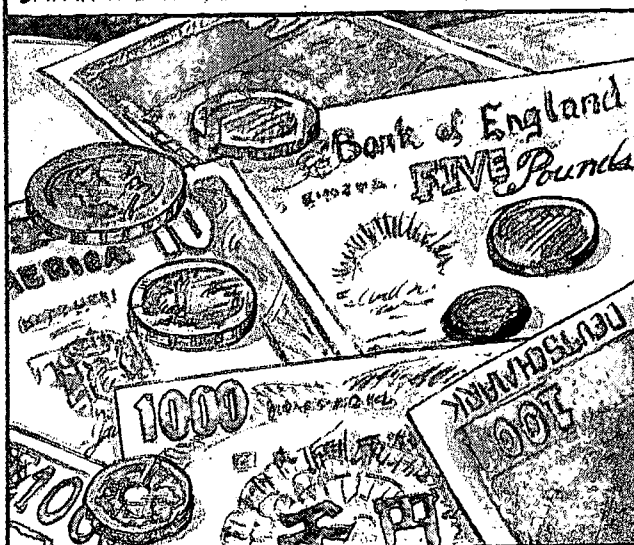




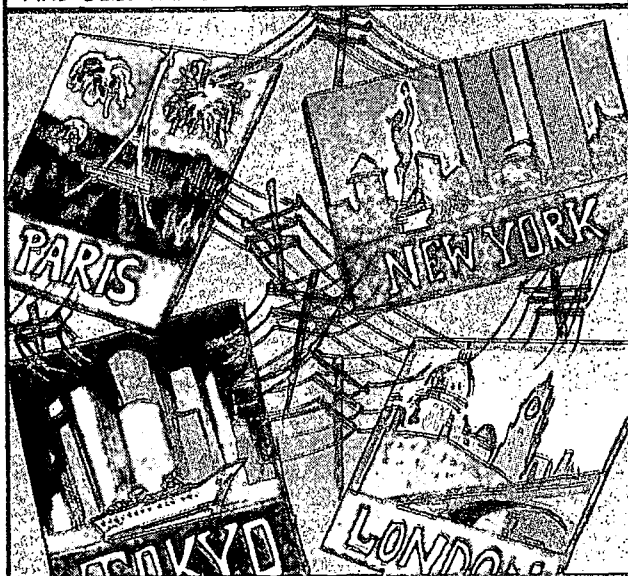
BUT COUNTRIES DON'T USUALLY TRADE ITEMS FOR OTHER ITEMS. FOR EXAMPLE, A UNITED STATES EXPORTER OF COMPACT DISCS WANTS TO BE PAID IN U.S. DOLLARS, NOT BLUE JEANS.



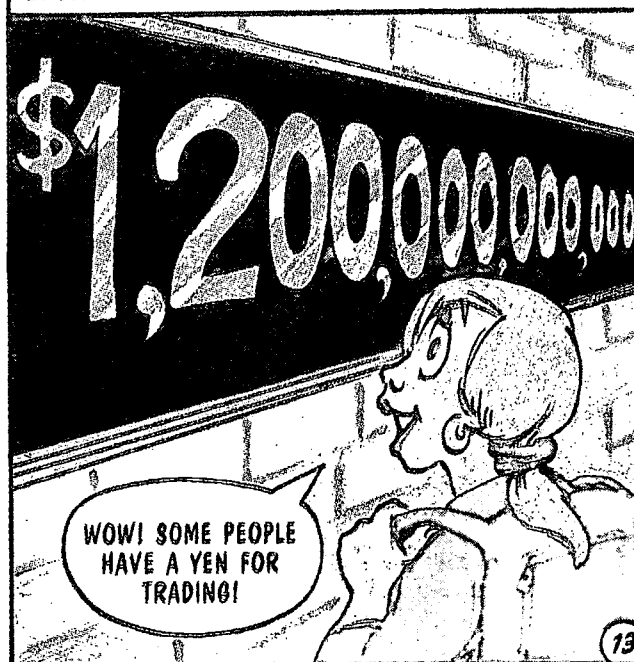
TO EXAMINE HOW COUNTRIES ACTUALLY TRADE GOODS AND SERVICES, WE HAVE TO INTRODUCE MONEY. MOST COUNTRIES HAVE THEIR OWN CURRENCY; THE UNITED STATES HAS THE DOLLAR, JAPAN THE YEN, GERMANY THE MARK, AND SO ON.



ONE CURRENCY IS TRADED FOR ANOTHER IN THE FOREIGN EXCHANGE MARKET. THIS MARKET IS A NETWORK OF FOREIGN EXCHANGE DEALERS, MAINLY IN LARGE FINANCIAL CENTERS, WHO BUY AND SELL VARIOUS CURRENCIES.

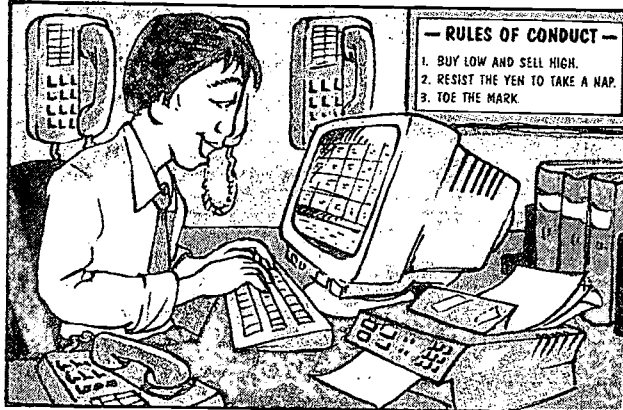


OVER \$1.2 TRILLION IS TRADED DAILY IN FOREIGN EXCHANGE TRANSACTIONS WORLDWIDE.

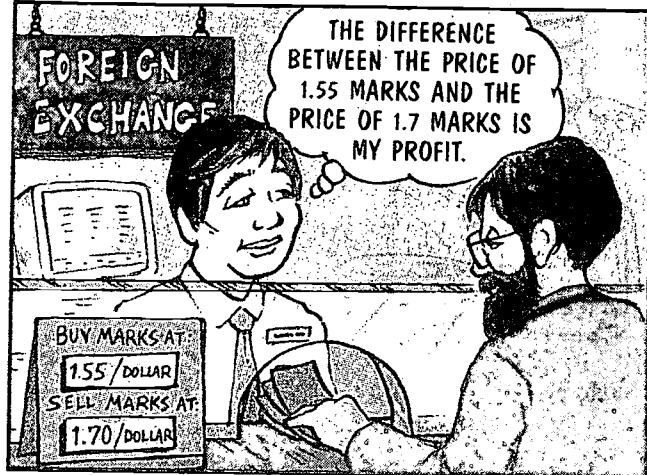




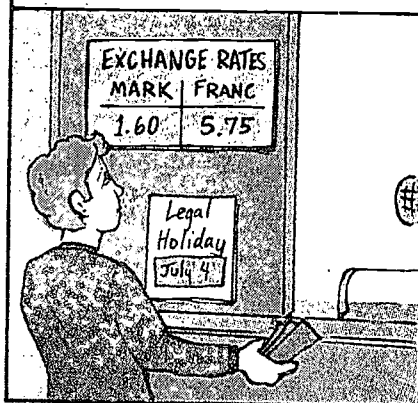
FOREIGN EXCHANGE DEALERS, LINKED BY TELEPHONES AND COMPUTERS, STAND READY TO LIST PRICES AT WHICH THEY WILL BUY AND SELL DIFFERENT CURRENCIES. THE DEALERS EARN PROFITS BY BUYING CURRENCIES AT ONE PRICE AND SELLING THEM AT SLIGHTLY HIGHER PRICES.



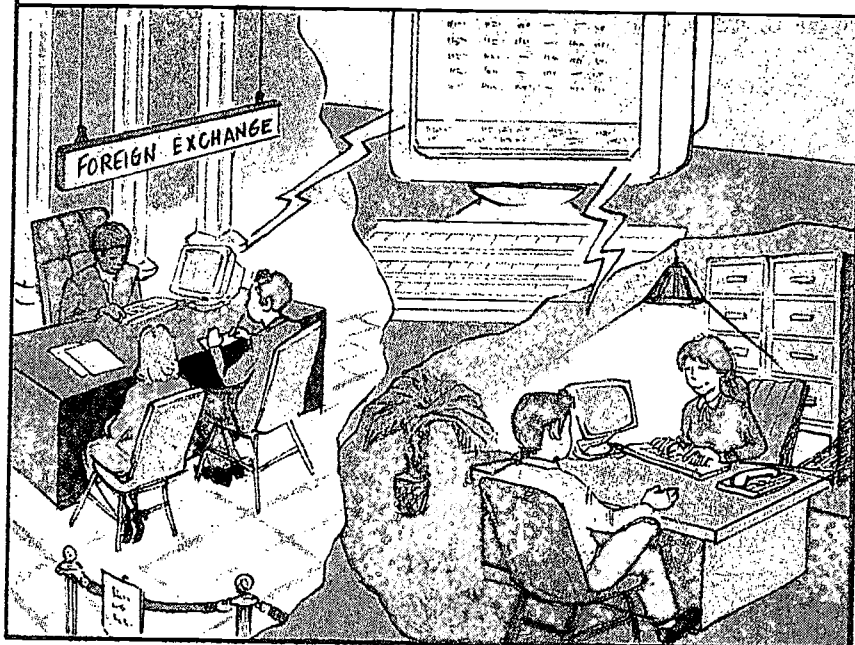
FOR EXAMPLE, WHILE A DEALER MIGHT BE WILLING TO PAY 1.55 GERMAN MARKS PER DOLLAR, THE DEALER MIGHT ASK FOR A PRICE OF 1.7 MARKS PER DOLLAR FROM SOMEONE WANTING BUY DOLLARS.



THE RATE AT WHICH ONE CURRENCY IS TRADED FOR ANOTHER IS KNOWN AS THE EXCHANGE RATE. AN EXCHANGE RATE LISTED IN THE UNITED STATES IS USUALLY EXPRESSED IN TERMS OF HOW MANY UNITS OF A FOREIGN CURRENCY ONE U.S. DOLLAR CAN BUY. THE GERMAN MARK EXCHANGE RATE, FOR EXAMPLE, MIGHT BE 1.60 MARKS PER DOLLAR.



LARGE CORPORATIONS, FINANCIAL INSTITUTIONS, AND GOVERNMENT AGENCIES NEED TO TRADE LARGE AMOUNTS OF CURRENCIES ON A REGULAR BASIS, EITHER FOR THEMSELVES OR (IN THE CASE OF THE FINANCIAL INSTITUTIONS) FOR THEIR CLIENTS.

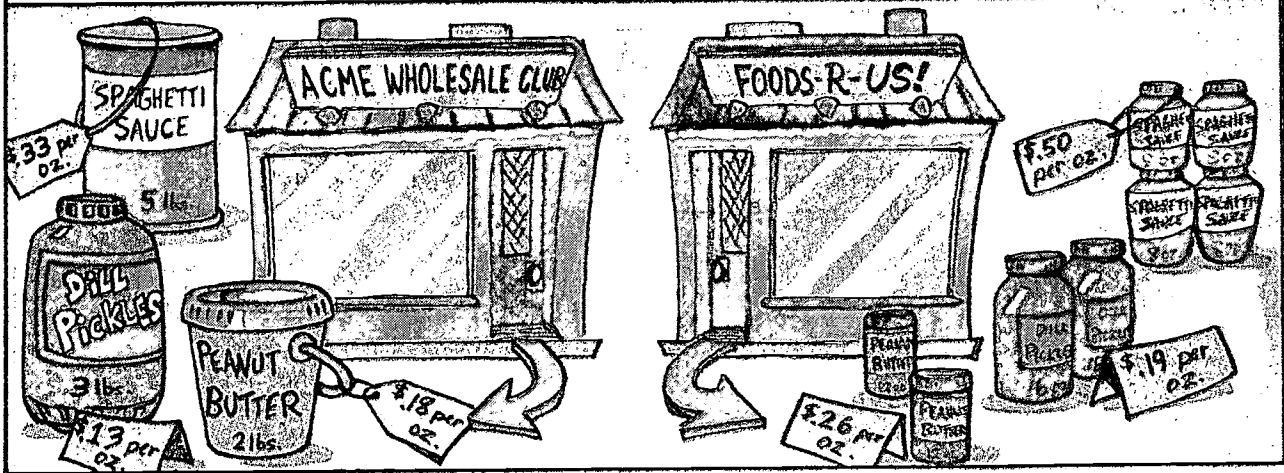


A FOREIGN EXCHANGE TRADER WILL CONTACT DIFFERENT FOREIGN EXCHANGE TRADERS TO ASK THEIR BUY AND SELL PRICES, FIND THE BEST PRICE, AND THEN COMPLETE THE TRANSACTION.

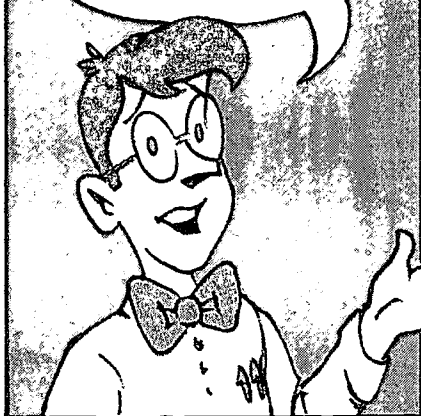




LARGE COMPANIES AND INSTITUTIONS TRADE IN A WHOLESALE ENVIRONMENT. THAT IS, TRADERS BUY IN LARGE AMOUNTS AND TEND TO GET THE BEST PRICES AVAILABLE FOR THE DIFFERENT CURRENCIES. THIS IS SIMILAR TO JOINING A WHOLESALE FOOD CLUB, WHERE BUYING IN BULK DECREASES THE PER UNIT COST.



IN CONTRAST, INDIVIDUALS AND SMALL COMPANIES, WHO HAVE SMALLER FOREIGN EXCHANGE NEEDS, OPERATE IN A RETAIL ENVIRONMENT. AS WITH ANY RETAIL SERVICE, THEY HAVE TO PAY A SOMEWHAT HIGHER PRICE. IN OTHER WORDS, THEY RECEIVE A LESS FAVORABLE EXCHANGE RATE.



A TOURIST, FOR EXAMPLE, USUALLY EXCHANGES CURRENCY AT A FINANCIAL INSTITUTION, TYPICALLY A LOCAL BANK.

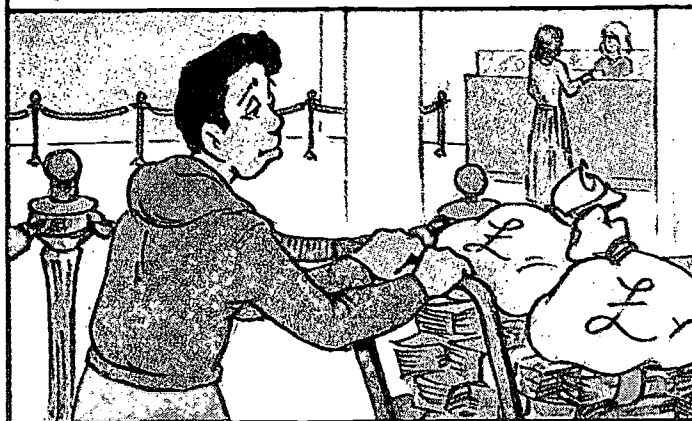


THE BANK IS OFFERING THE TOURIST A VALUABLE SERVICE.

THE NEWSPAPER LISTING SAYS THE EXCHANGE RATE IS 1.60 MARKS PER DOLLAR, BUT AT THE BANK I GOT ONLY 1.50 MARKS PER DOLLAR.



THE REASON THE RETAIL FOREIGN EXCHANGE (FX, FOR SHORT) CUSTOMER GETS A LOWER RATE IS THAT RETAIL TRANSACTIONS ARE USUALLY SMALL AND INVOLVE PAPER CURRENCY, RATHER THAN ELECTRONIC MONEY; SO, THEY'RE RELATIVELY EXPENSIVE TO EXECUTE.



IN THE TIME IT WILL TAKE ME TO COUNT THIS MONEY, I COULD EXECUTE A DOZEN ELECTRONIC FX TRANSACTIONS FOR MUCH LARGER SUMS.





TO UNDERSTAND WHY FOREIGN EXCHANGE IS IMPORTANT, SUPPOSE YOU'RE A TOURIST IN A FOREIGN COUNTRY, SAY, GERMANY. YOU GET OFF THE PLANE AND HEAD TO A NICE RESTAURANT BECAUSE YOU'RE HUNGRY.



AT THE END OF THE BIG MEAL, YOU HAVE TO PAY.



HOW DO YOU DO IT? U.S. DOLLARS WON'T WORK; THE RESTAURANT WANTS 50 MARKS.

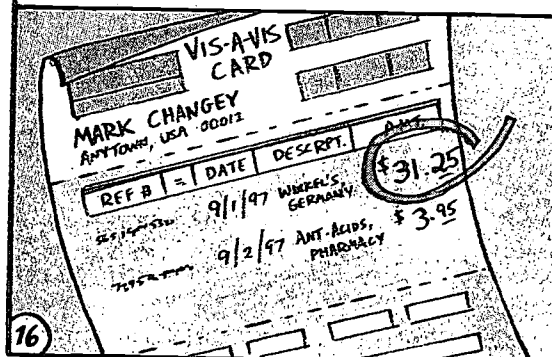
MARK MY WORDS: WE DON'T ACCEPT DOLLARS.



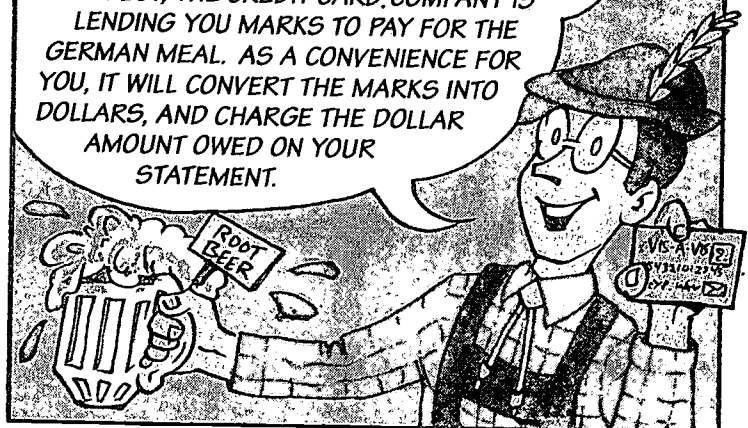
FORTUNATELY, YOU HAD CHANGED DOLLARS INTO MARKS AT THE AIRPORT BANK, AND YOU CAN PAY FOR YOUR MEAL.



WHAT HAPPENS IF YOU USE A CREDIT CARD TO PAY FOR YOUR MEAL? BECAUSE THE CREDIT CARD COMPANY IS LOCATED IN THE UNITED STATES, YOUR MONTHLY STATEMENT WILL SHOW THE AMOUNT OWED FOR THE GERMAN MEAL IN U.S. DOLLARS.

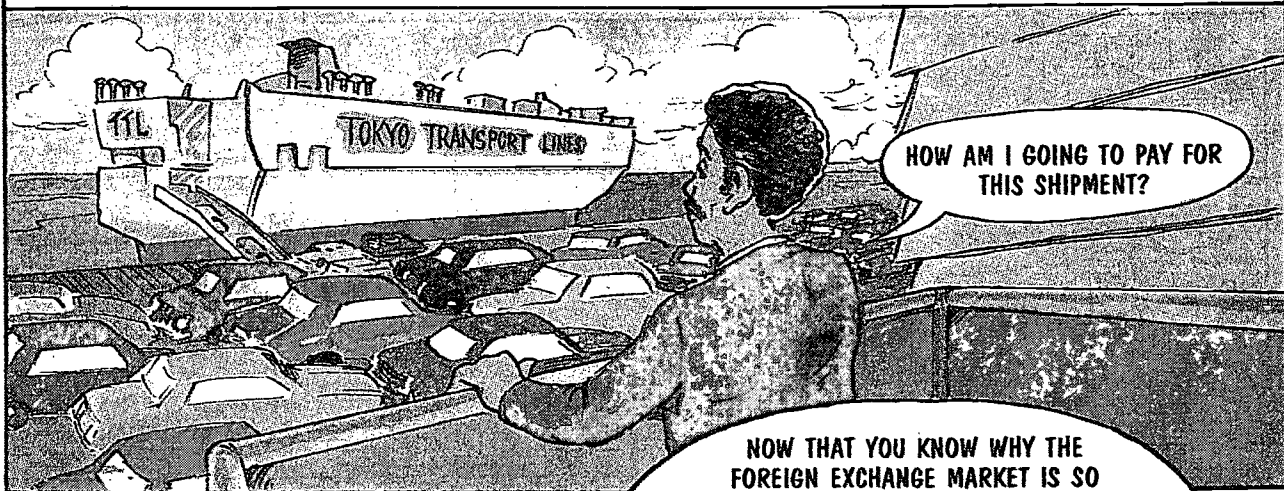


AS IS THE CASE WITH ANY CREDIT CARD TRANSACTION, YOU DON'T PAY THE RESTAURANT; RATHER, YOUR CREDIT CARD COMPANY DOES. IN EFFECT, THE CREDIT CARD COMPANY IS LENDING YOU MARKS TO PAY FOR THE GERMAN MEAL. AS A CONVENIENCE FOR YOU, IT WILL CONVERT THE MARKS INTO DOLLARS, AND CHARGE THE DOLLAR AMOUNT OWED ON YOUR STATEMENT.





BUSINESSES THAT IMPORT GOODS ALSO NEED TO EXCHANGE CURRENCY. A U.S. CAR DEALER IMPORTING JAPANESE CARS HAS TO FIND A WAY TO PAY THE JAPANESE MANUFACTURER FOR THE CARS.



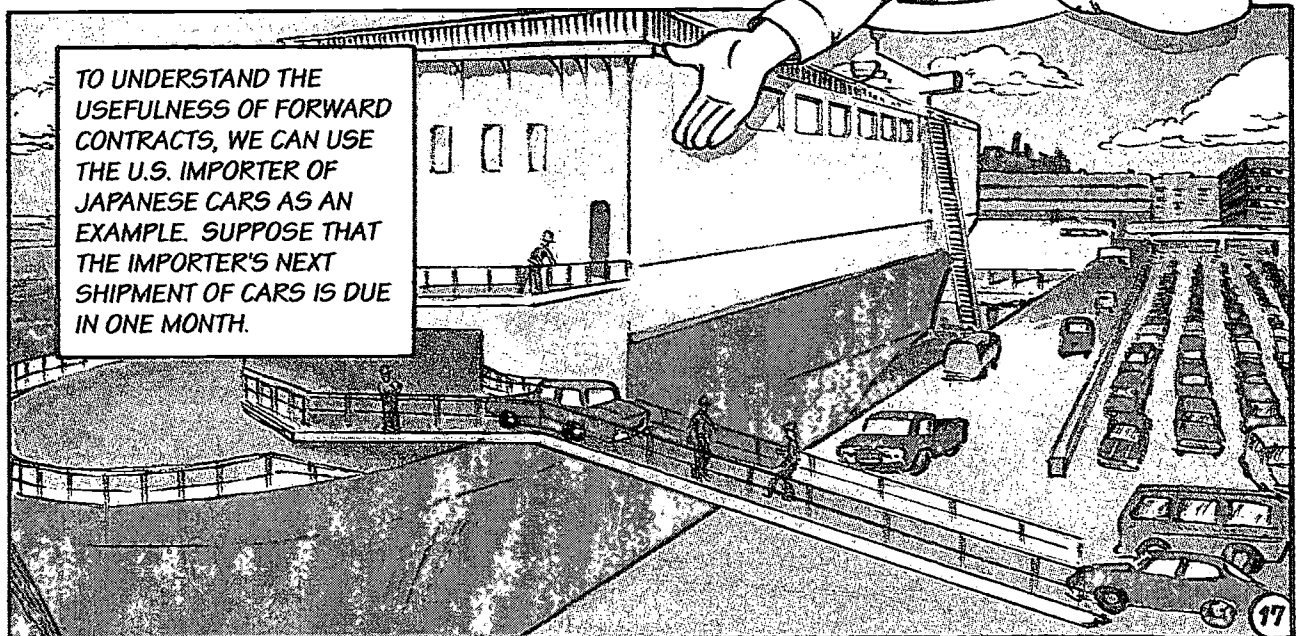
THE JAPANESE MANUFACTURER WANTS TO BE PAID IN YEN, NOT DOLLARS, SO THE U.S. DEALER HAS TO FIND A WAY TO CONVERT SOME DOLLARS INTO YEN TO PAY FOR THE CAR SHIPMENT.



NOW THAT YOU KNOW WHY THE FOREIGN EXCHANGE MARKET IS SO IMPORTANT, WE CAN DESCRIBE THE TWO PRIMARY TYPES OF TRANSACTIONS THAT TAKE PLACE IN THE MARKET. AN IMMEDIATE CURRENCY EXCHANGE IS KNOWN AS A SPOT TRANSACTION. A TRANSACTION ARRANGED TO OCCUR AT SOME FUTURE DATE AT AN EXCHANGE RATE AGREED UPON TODAY IS KNOWN AS A FORWARD CONTRACT.

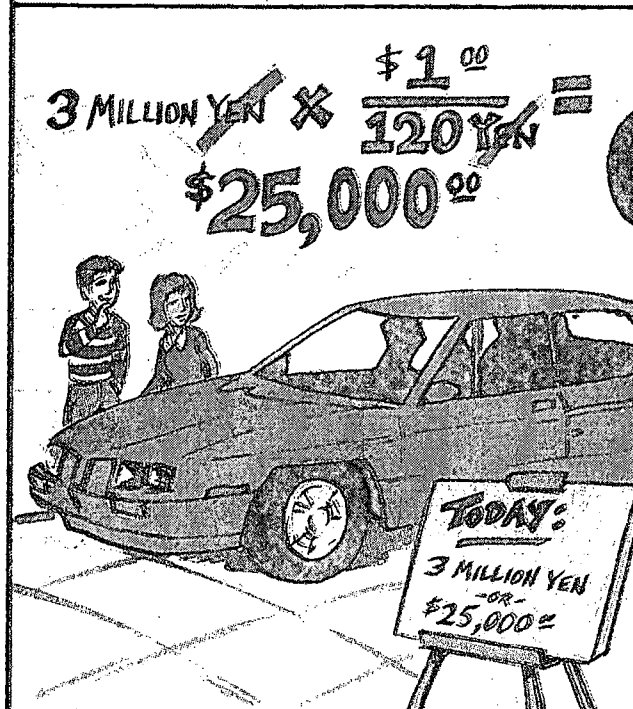


TO UNDERSTAND THE USEFULNESS OF FORWARD CONTRACTS, WE CAN USE THE U.S. IMPORTER OF JAPANESE CARS AS AN EXAMPLE. SUPPOSE THAT THE IMPORTER'S NEXT SHIPMENT OF CARS IS DUE IN ONE MONTH.

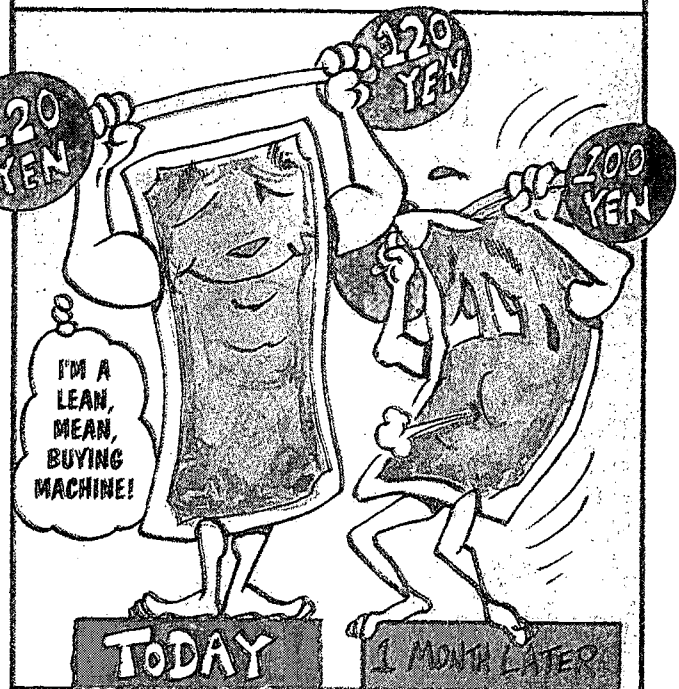




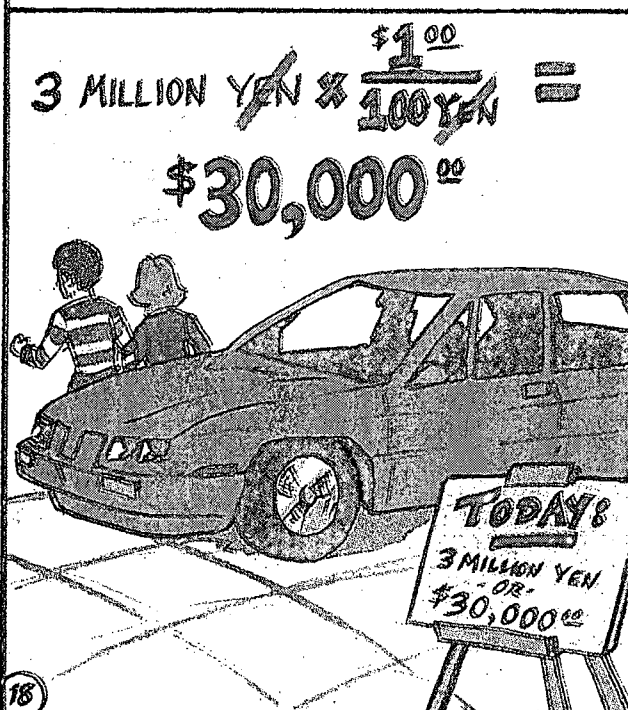
TO PAY FOR THE CARS, THE U.S. IMPORTER MUST FIND A WAY TO PAY THE JAPANESE CAR MAKER IN YEN IN ONE MONTH. SUPPOSE THAT THE EXCHANGE RATE IS NOW 120 YEN TO THE DOLLAR AND EACH CAR COSTS 3 MILLION YEN. HOW MANY DOLLARS IS THIS? WE COMPUTE AS FOLLOWS: (3 MILLION YEN) X (\$1/120 YEN) = \$25,000.



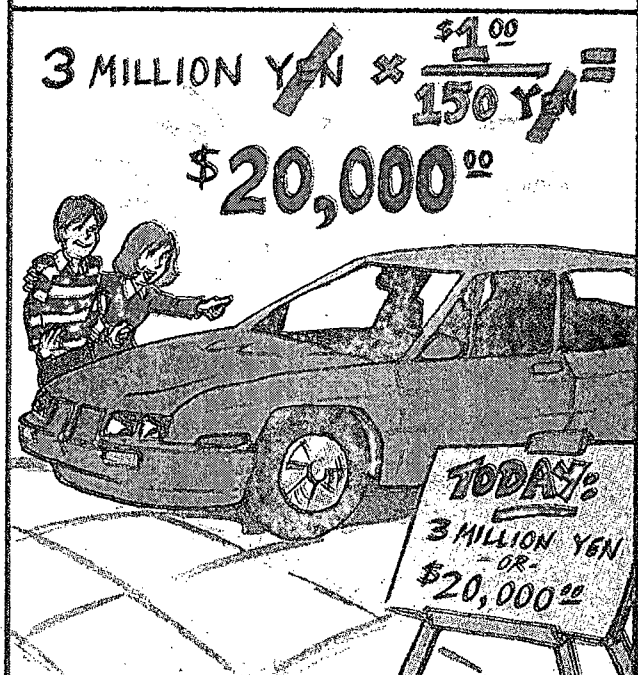
NOW SUPPOSE THAT A MONTH LATER THE YEN EXCHANGE RATE IS 100 YEN PER DOLLAR. WHAT DOES THIS MEAN? AT AN EXCHANGE RATE OF 120 YEN PER DOLLAR, \$1 WILL BUY 120 YEN. AT AN EXCHANGE RATE OF 100 YEN PER DOLLAR, \$1 WILL BUY 100 YEN. BECAUSE THE DOLLAR BUYS FEWER YEN AT THE NEW EXCHANGE RATE, WE SAY THAT THE DOLLAR HAS WEAKENED.



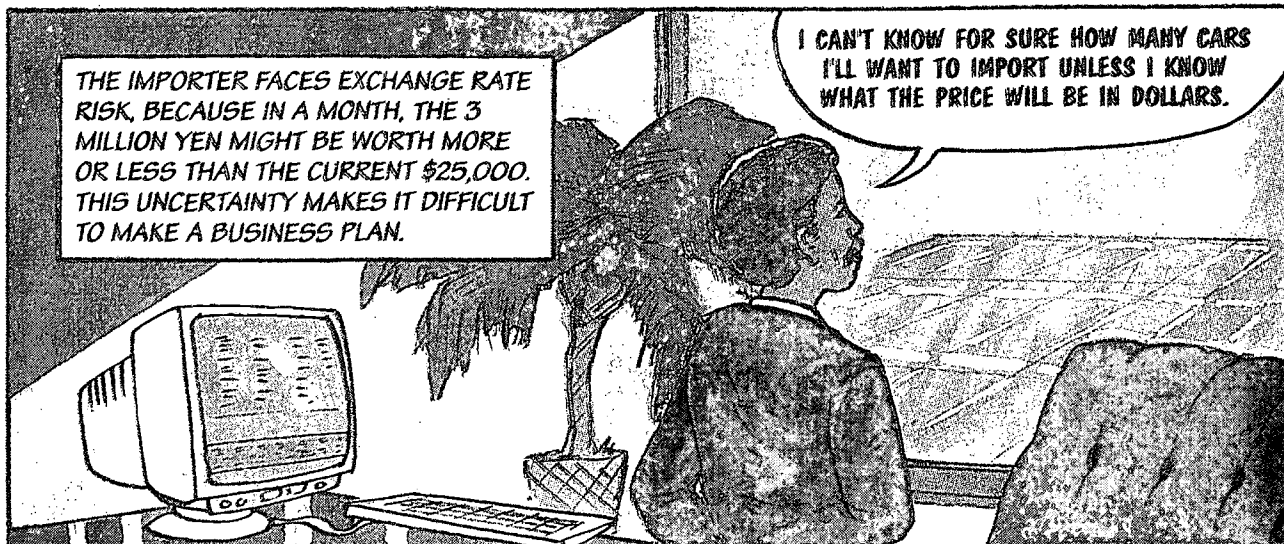
BECAUSE THE DOLLAR HAS WEAKENED, IT NOW TAKES MORE DOLLARS TO EQUAL 3 MILLION YEN. HOW MANY MORE? THE NEW EXCHANGE RATE IS 100 YEN PER DOLLAR, SO 3 MILLION YEN WILL BE WORTH (3 MILLION YEN) X (\$1/100 YEN) = \$30,000. THUS, THE CAR IS \$5,000 MORE EXPENSIVE THAN BEFORE.



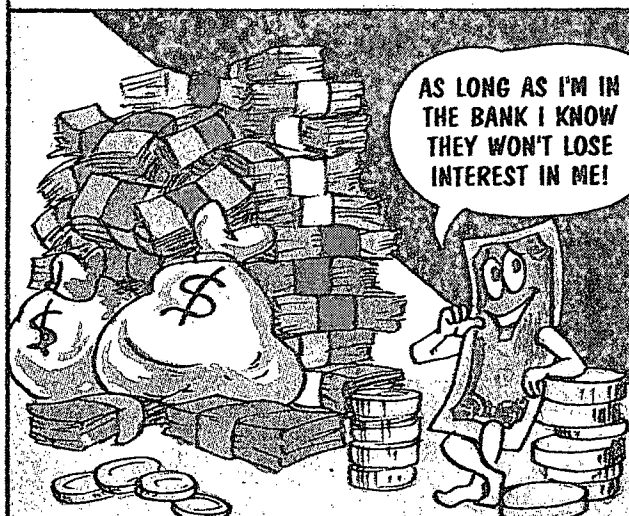
OF COURSE, THE REVERSE COULD ALSO HAPPEN. THE EXCHANGE RATE MIGHT INCREASE TO 150 YEN PER DOLLAR. IN THIS CASE, WE SAY THE DOLLAR HAS STRENGTHENED AGAINST THE YEN, BECAUSE \$1 NOW BUYS MORE YEN THAN BEFORE. THE PRECISE DOLLAR AMOUNT OF THE CHANGE IS COMPUTED AS FOLLOWS: (3 MILLION YEN) X (\$1/150 YEN) = \$20,000, A DECREASE OF \$5,000.



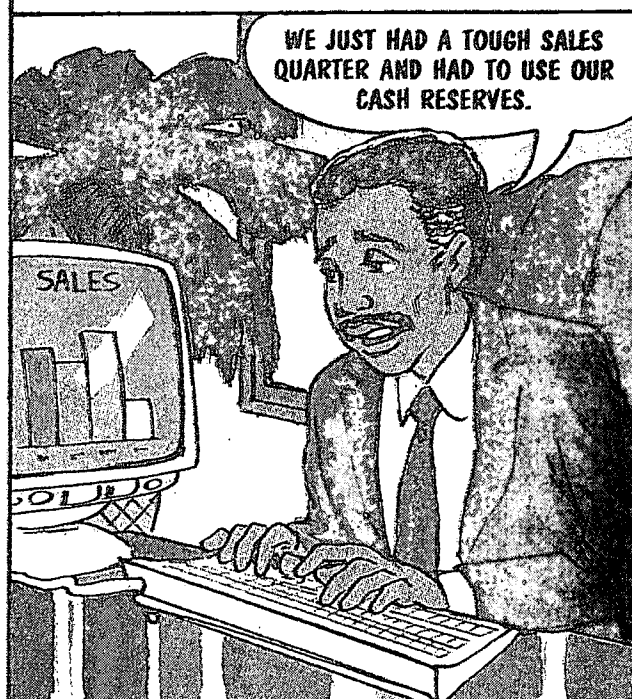




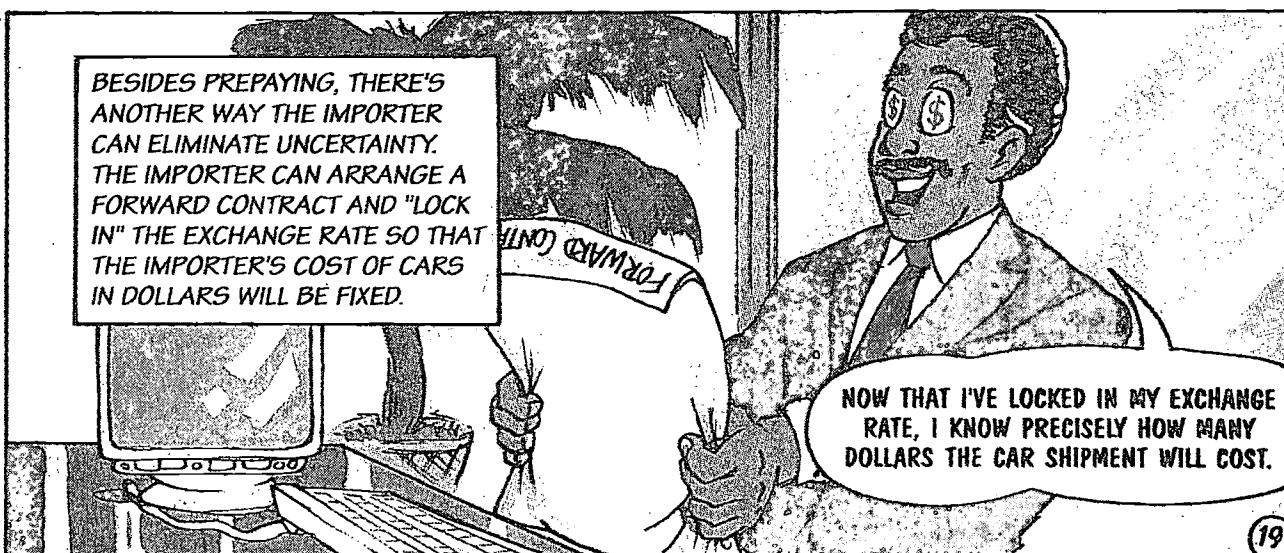
YOU MIGHT WONDER WHY THE U.S. IMPORTER WOULDN'T JUST PREPAY FOR NEXT MONTH'S CAR SHIPMENT AT TODAY'S EXCHANGE RATE OF 120 YEN PER DOLLAR. THAT WOULD OBVIOUSLY ELIMINATE UNCERTAINTY AND REDUCE THE EXCHANGE RATE RISK. ONE REASON IS THAT COMPANIES GENERALLY PREFER TO KEEP THEIR MONEY FOR AS LONG AS POSSIBLE TO EARN INTEREST ON IT.



OR, IT COULD BE THAT THE COMPANY DOESN'T HAVE ENOUGH MONEY ON HAND TO PREPAY.



BESIDES PREPAYING, THERE'S ANOTHER WAY THE IMPORTER CAN ELIMINATE UNCERTAINTY. THE IMPORTER CAN ARRANGE A FORWARD CONTRACT AND "LOCK IN" THE EXCHANGE RATE SO THAT THE IMPORTER'S COST OF CARS IN DOLLARS WILL BE FIXED.

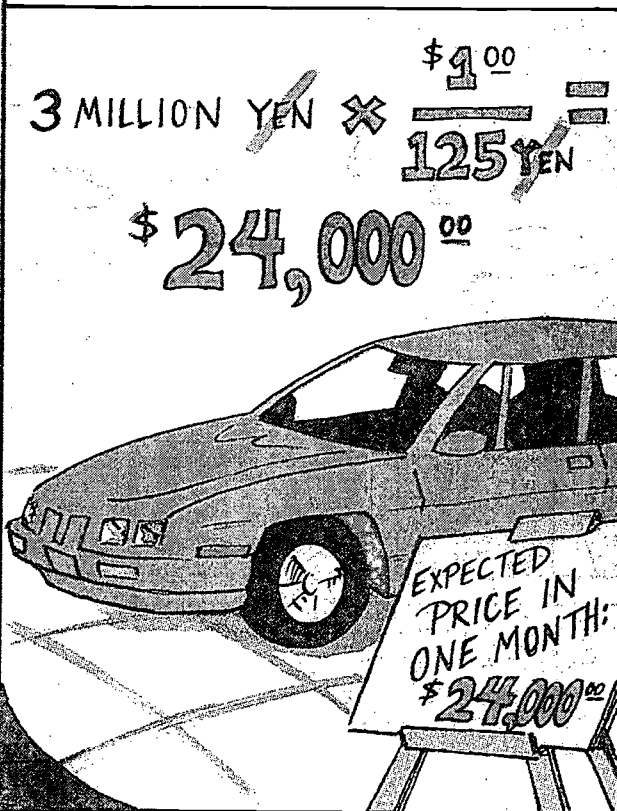




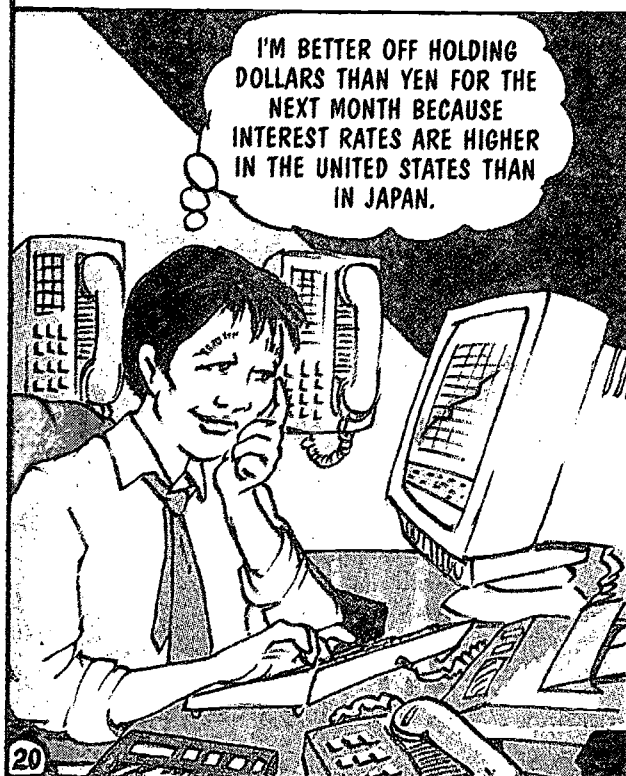
TO ILLUSTRATE A FORWARD CONTRACT, SUPPOSE THAT THE 30-DAY FORWARD EXCHANGE RATE IS 125 YEN PER DOLLAR.

FOREIGN EXCHANGE RATES (UNITS OF FOREIGN CURRENCY PER DOLLAR)		
	SPOT RATE	30-DAY FORWARD
BRITISH POUND	0.61	0.62
CANADIAN DOLLAR	1.40	1.35
FRENCH FRANC	5.75	5.70
GERMAN MARK	1.60	1.65
JAPANESE YEN	120	125
SWISS FRANC	1.42	1.40

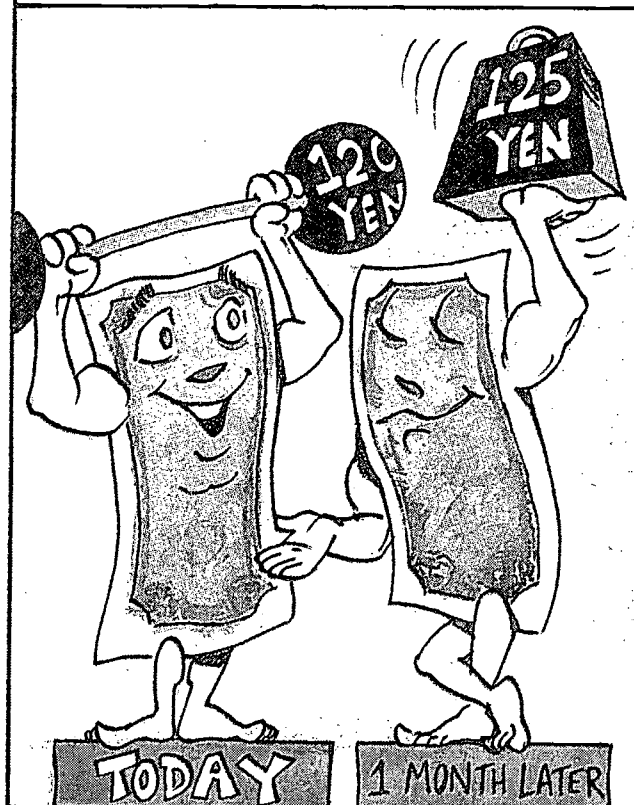
BECAUSE THE CAR IMPORTER HAS ACCESS TO FORWARD CONTRACTS, THE EXPECTED COST OF THE 3 MILLION YEN NEEDED TO PAY THE JAPANESE CAR MAKER IN ONE MONTH IS \$24,000.



ONE FACTOR AFFECTING FORWARD EXCHANGE RATES IS THAT INTEREST RATES DIFFER BETWEEN COUNTRIES, AND SO PEOPLE WHO HOLD THE CURRENCY OF A COUNTRY WITH HIGH INTEREST RATES CAN EARN A HIGHER RETURN.

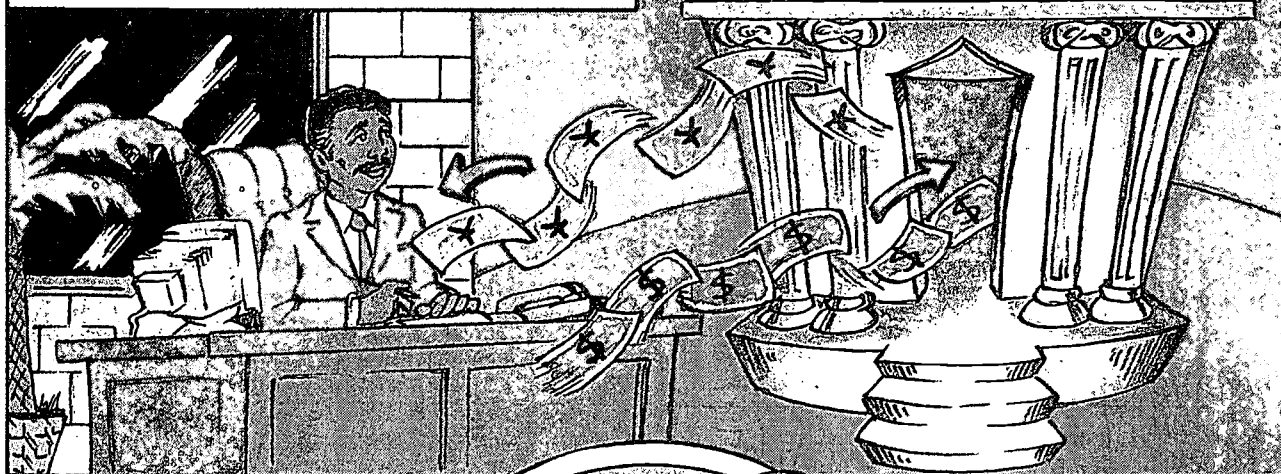


INDEED, IF INTEREST RATES ARE HIGHER IN THE UNITED STATES THAN IN JAPAN, THE LIKELIHOOD INCREASES THAT THE DOLLAR WILL STRENGTHEN RELATIVE TO THE YEN.

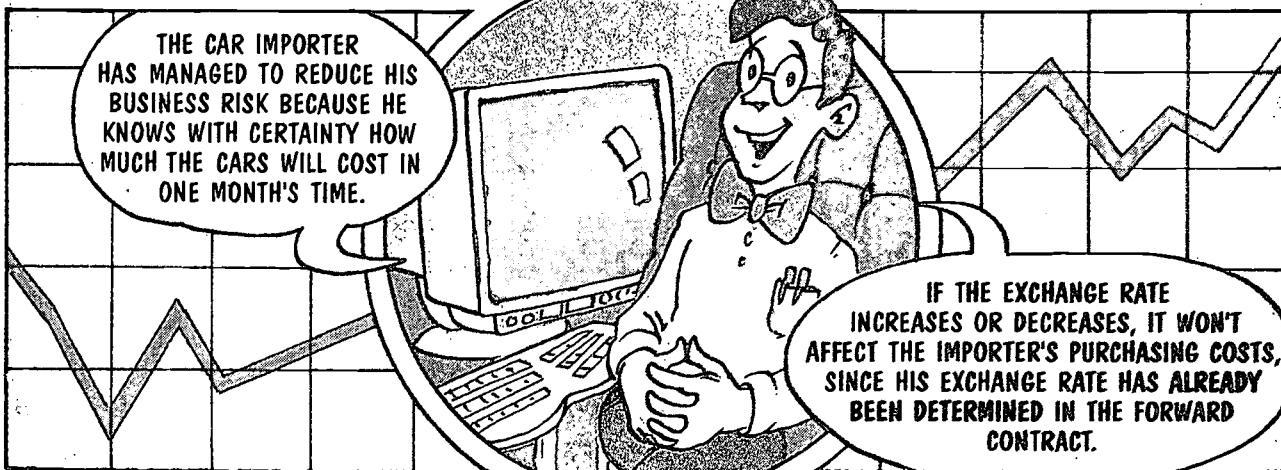




THE U.S. IMPORTER MAY ARRANGE A FORWARD CONTRACT THROUGH A LARGE BANK. THE BANK AGREES TO SELL 3 MILLION YEN TO THE U.S. IMPORTER, IN ONE MONTH'S TIME, AT A FORWARD EXCHANGE RATE OF 125 YEN PER DOLLAR. THE IMPORT COMPANY IS EFFECTIVELY PAYING THE BANK TO ASSUME SOME OF ITS EXCHANGE RATE RISK.



THE CAR IMPORTER HAS MANAGED TO REDUCE HIS BUSINESS RISK BECAUSE HE KNOWS WITH CERTAINTY HOW MUCH THE CARS WILL COST IN ONE MONTH'S TIME.



IF THE EXCHANGE RATE INCREASES OR DECREASES, IT WON'T AFFECT THE IMPORTER'S PURCHASING COSTS, SINCE HIS EXCHANGE RATE HAS ALREADY BEEN DETERMINED IN THE FORWARD CONTRACT.

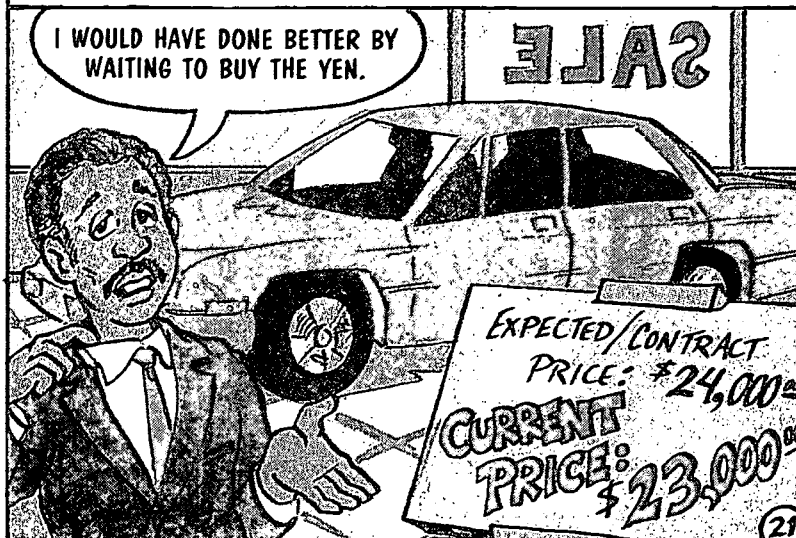
YOU SHOULD KEEP IN MIND THAT FORWARD EXCHANGE RATES ARE NOT PRECISE FORECASTS OF FUTURE EXCHANGE RATES. THEREFORE, LOCKING IN A FORWARD EXCHANGE RATE CREATES SOME RISK FOR A COMPANY BECAUSE IT MAY HAVE LOCKED IN AN UNFAVORABLE RATE.

FOR EXAMPLE, IF THE ACTUAL EXCHANGE RATE IN ONE MONTH IS HIGHER THAN 125 YEN PER DOLLAR, THE U.S. COMPANY WOULD HAVE BENEFITED BY NOT ENTERING INTO THE FORWARD CONTRACT BECAUSE THE PRICE PER CAR IS NOW LESS THAN \$24,000.

I HOPE I DIDN'T LOCK IN AN UNFAVORABLE RATE.

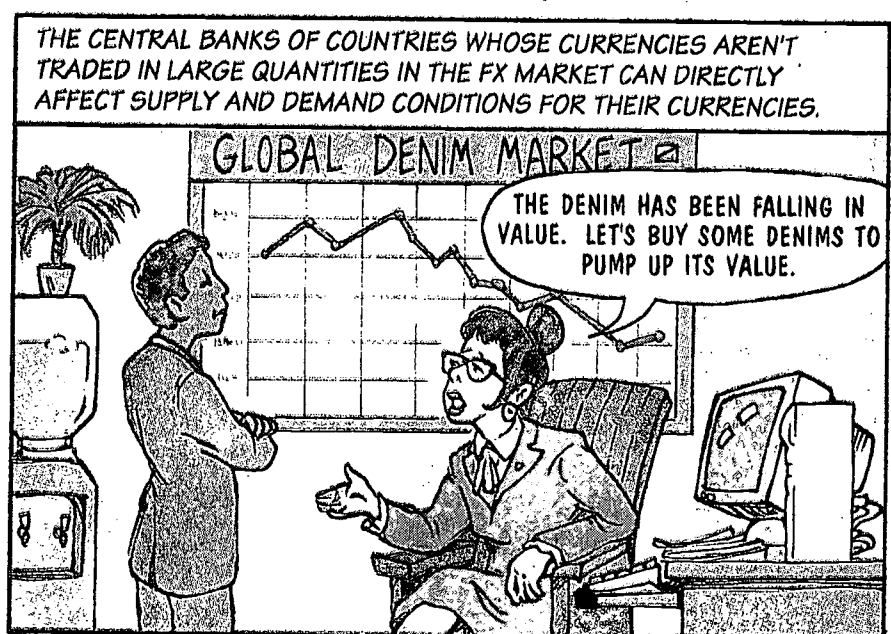
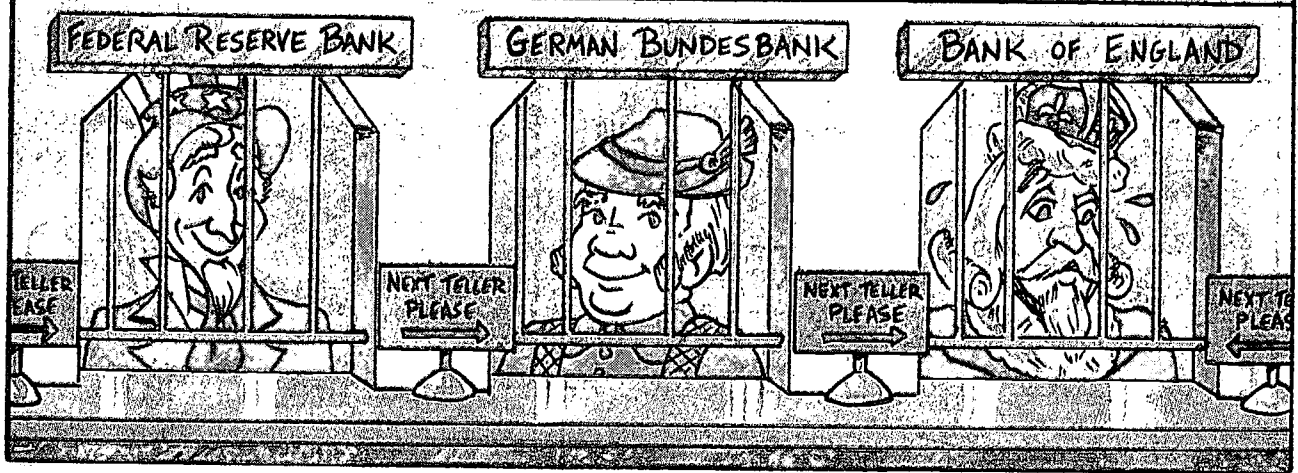


I WOULD HAVE DONE BETTER BY WAITING TO BUY THE YEN.

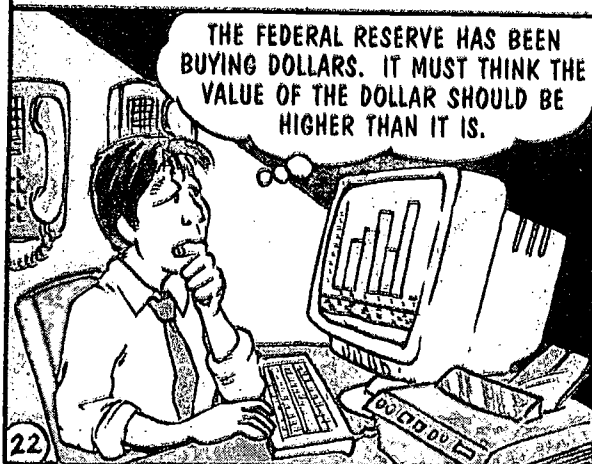




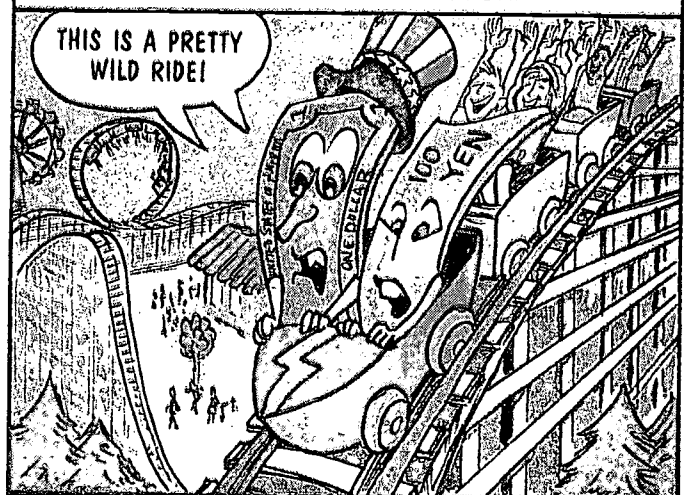
CENTRAL BANKS, NATIONS' MONETARY AUTHORITIES, ALSO ARE ACTIVELY INVOLVED IN THE FOREIGN EXCHANGE MARKET. THEY ARE IN THE MARKET TO TRY TO MAINTAIN STABILITY IN THE MARKETPLACE FOR CURRENCIES, SO THAT INTERNATIONAL TRADE CAN TAKE PLACE UNIMPEDED.



FOR A COUNTRY SUCH AS THE UNITED STATES, WHOSE CURRENCY IS ACTIVELY TRADED IN THE FX MARKET, CENTRAL BANK FX INTERVENTION IS MORE LIKELY TO INFLUENCE MARKET SENTIMENT THAN TO ALTER DEMAND AND SUPPLY CONDITIONS FOR THE DOLLAR.

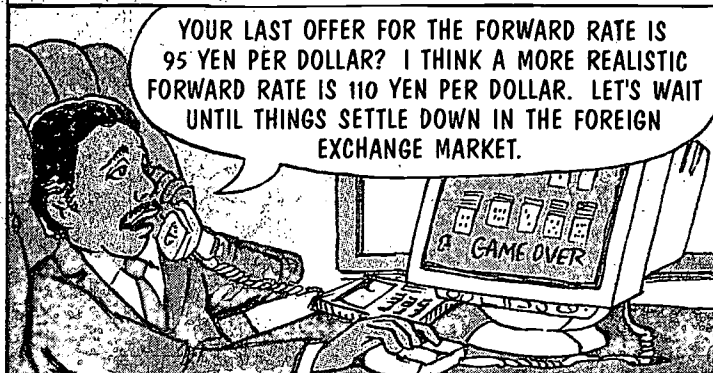


ALTHOUGH THERE IS NO ABSOLUTE RULE DETERMINING WHEN CENTRAL BANKS MIGHT INTERVENE, SHARP AND RAPID EXCHANGE RATE FLUCTUATIONS UNRELATED TO UNDERLYING ECONOMIC CONDITIONS ARE SIGNS THAT THE CENTRAL BANKS MIGHT TAKE ACTION.

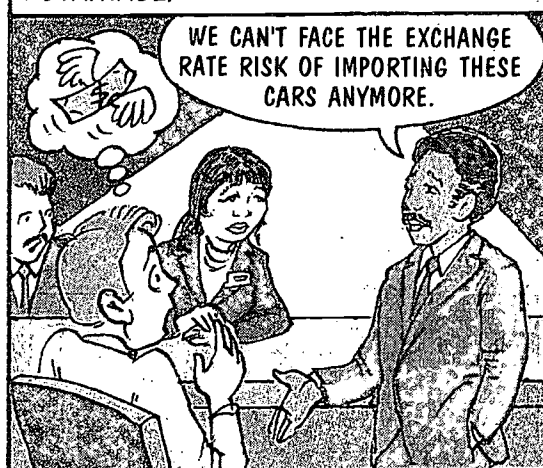




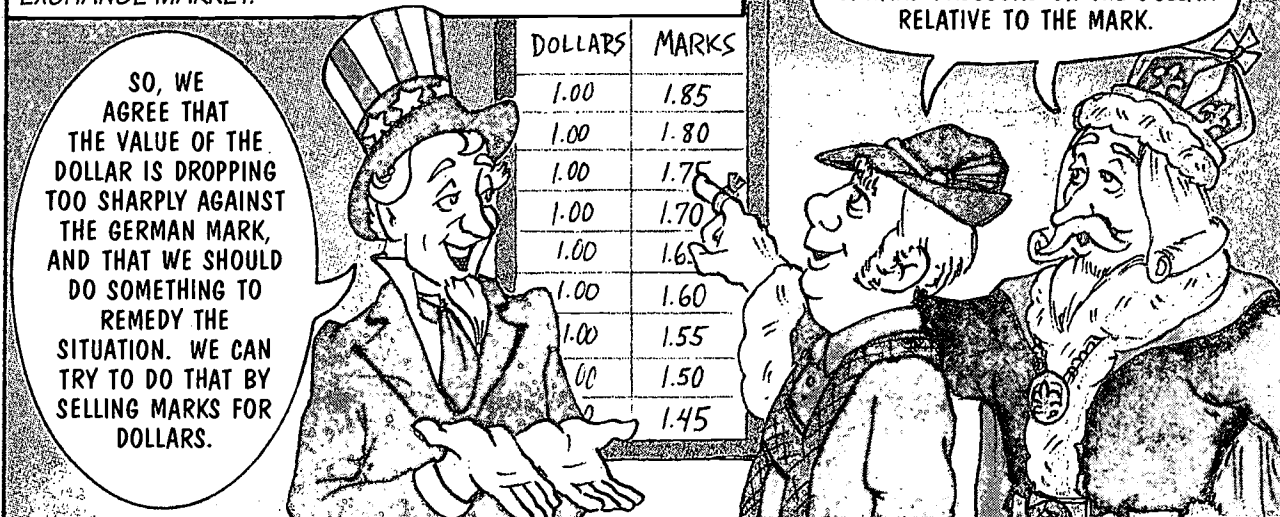
A DISORDERLY FOREIGN EXCHANGE MARKET CAN LEAD TO ECONOMIC INSTABILITY. WITH INCREASED FLUCTUATION IN EXCHANGE RATES, IT BECOMES MORE DIFFICULT AND EXPENSIVE TO AGREE TO MARKET TRANSACTIONS, AND COMPANIES MAY BE UNWILLING TO MAKE COMMITMENTS IN FOREIGN CURRENCIES. AS A RESULT, TRADE CAN SUFFER.



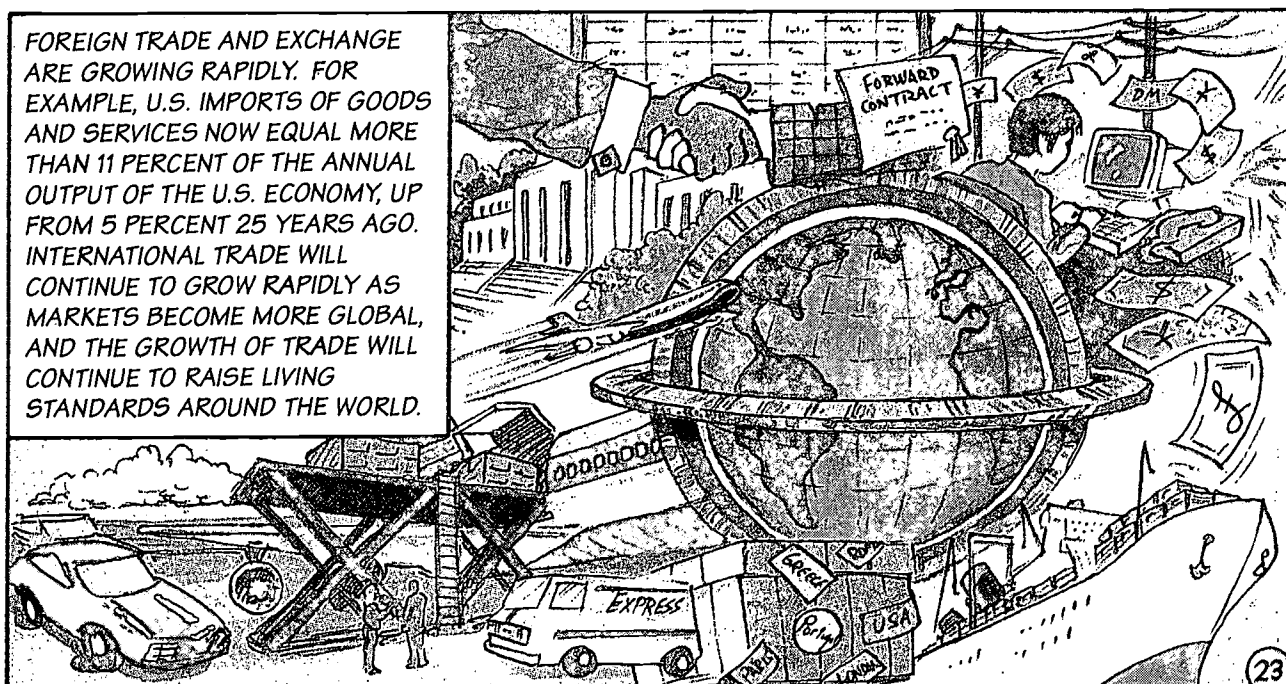
SOME COMPANIES MAY STOP IMPORTING, REDUCING THE BENEFITS OF COMPARATIVE ADVANTAGE.



THE WORLD'S MAJOR CENTRAL BANKS SOMETIMES COMBINE EFFORTS TO TRY TO MAINTAIN STABILITY IN THE FOREIGN EXCHANGE MARKET.



FOREIGN TRADE AND EXCHANGE ARE GROWING RAPIDLY. FOR EXAMPLE, U.S. IMPORTS OF GOODS AND SERVICES NOW EQUAL MORE THAN 11 PERCENT OF THE ANNUAL OUTPUT OF THE U.S. ECONOMY, UP FROM 5 PERCENT 25 YEARS AGO. INTERNATIONAL TRADE WILL CONTINUE TO GROW RAPIDLY AS MARKETS BECOME MORE GLOBAL, AND THE GROWTH OF TRADE WILL CONTINUE TO RAISE LIVING STANDARDS AROUND THE WORLD.



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